A STUDY OF SOME ASPECTS OF THE MOVEMENT OF LABOUR WITHIN SCOTTISH AGRICULTURE

BY

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I certify that the contents and composition of this thesis are based upon my own work.

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MAIN ABBREVIATIONS USED IN THE TEXT

A.H.F.I.T.B.	Agricultural, Horticultural and Forestry Industry Training Board (Renamed the Agricultural Training Board in 1974).
B.S.A.L.S.	British Society for Agricultural Labour Science.
D.A.F.S.	Department of Agriculture and Fisheries for Scotland.
E.D.C.	Economic Development Committee for the Agricultural Industry.
N.E.D.O.	National Economic Development Organisation

Note: Titles of journals are abbreviated according to the World List of Scientific Periodicals (4th edn.) and the International Bibliography of Social Sciences. A full list of publishers is contained in Appendix 6.

INTRODUCTION

The subject of agricultural manpower involves many complex and vexed issues upon which the opinions of economists, farmers, workers and the general public differ widely. The agricultural labour force in the United Kingdom has shown a marked reduction since the number of workers was first recorded in the June Census of 1921. In Scotland in 1921 there were 104,000 regular whole time male workers. This had fallen to 35,284 by June 1973. The rate of reduction had been particularly rapid in the 1960's. This was a product of mechanisation, rationalisation, and the attraction of other occupations. Whilst this net outflow of workers provided a valuable source of manpower for the expanding sectors of the economy,[1] the Economic Development Committee for the Agricultural Industry[2] considered that it might prejudice the expansion of output in certain sectors of agriculture, particularly livestock. There is also evidence that the recruitment, training and retention of young workers may prove problematic.[3]

The pay of agricultural workers, expressed in national terms as a percentage of industrial earnings, has remained consistently at about 70 per cent. This has led some economists to suggest that relative earnings will only improve if further migration of workers away from agriculture is encouraged.[4] Research in the United States[5]

1. The National Plan, Cmnd. 2764, H.M.S.O., 1965, p. 43.
2. Agriculture's Import Saving Role, E.D.C. for the Agricultural H.M.S.O., 1968.
3. Harvey, G., Farmers Join the Queue for Manpower, Farmers Weekly, October 26, 1973, p. 49.
4. Metcalfe, D. The Economics of Agriculture, 1968, p. 49.
5. e.g. Hathaway, D. E. and Perkins, P. B., Farm Labour Mobility, Migration and Income Distribution, Amer. J. agric. Econ. 50. 1968, p. 342.

has suggested, however, that for many agricultural workers their pay is currently as high as it would be in other occupations.

The available literature shows that economists differ in their interpretation of the agricultural labour market.[6] Also few studies of the agricultural labour market have used information obtained directly from the workers, though several studies in the United States have used detailed social administrating data.[7] This type of information is not readily accessible in the United Kingdom, and researchers have either relied upon indirect approaches (e.g. union membership lists)[8], which tend to be incomplete, or on secondary data obtained from farmers.[9]

This Fife study was designed, therefore, to make a direct approach to a sample of agricultural and ex-agricultural workers. There were 200 workers in the survey, split into two main groups:-

1. Agricultural Workers (100)

a. Workers entering agriculture

b. Workers moving within agriculture

2. Ex-agricultural Workers (100)

a. Workers leaving agriculture

b. Workers moving outside agriculture

6. e.g. Hathaway and Perkins, op. cit; Metcalfe op. cit; Bellerby, J. R. Agriculture and Industry: Relative Income, 1956; Johnson D. G., Policies to Improve the Labour Transfer Process, Amer. econ. R. 50, (Papers and Proceedings) 1960, p. 401 ff.
Reder, M. W. Movements of Workers out of Agriculture - a discussion point, Amer. Econ. R. 50, (Papers and Proceedings) 1960, p. 415.

7. Hathaway and Perkins op cit; Gallaway, L. E., Geographic Flows of Hired Agricultural Labour: 1957-60, Amer. J. agric. Econ. 50, 1968, p. 199.

8. Cowie, W. J. G. and Giles, A. K. An Inquiry into Reasons for 'The Drift from the Land', Selected Papers in Agricultural Economics 5 (3), University of Bristol, Department of Agricultural Economics, 1957.

9. e.g. Gasson, R. Mobility of Farm Workers, Occasional Paper No. 2, University of Cambridge Department of Land Economics, 1974; McIntosh, F. A survey of Workers Leaving Scottish Farms, Scott. agric. Econ. 22, 1972, p. 147.

These terms refer to their last change of job. The sample of agricultural workers was drawn from a list of workers provided by a random sample of Fife farmers. The ex-agricultural workers were selected from a list produced by a survey of all non-agricultural employers in Fife. This approach, and the use of personal interviews, ensured that the problem of an inadequate coverage of the target population was minimised. The restriction of the survey to Fife was necessary because of the resources available. Fife provided a particularly suitable area in which to carry out the survey for the following reasons:-

1. It is a geographically well defined region.

2. It has a variety of employments other than farming, ranging from old established industries, e.g. fishing and linoleum, to new developments, e.g. electronics and light engineering.

3. It has a number of reasonably large towns, e.g. Kirkcaldy with 50,325 population and Dunfermline with 49,855 population.[10]

4. It has a wide variety of farming types, ranging from intensive cropping farms to extensive hill systems.

As farmers were not interviewed, assessment of the overall manpower problems of individual farms was outside the scope of this survey. However, the information gained from each interviewee does mean that a detailed picture can be built up of the type of worker who leaves agriculture, the reasons for his move and the consequences of mobility for him. This type of information should be of value to the industry if it is to determine its manpower requirements, and then set about the recruitment and training of sufficient workers of the right quality.[11]

10. Census 1971 Scotland, Second Preliminary Report, H.M.S.O., 1972.

11. Britton, D. K., Agricultural Manpower: The Current Situation in Agricultural Manpower, E.D.C. for the Agricultural Industry, H.M.S.O., 1969;
Bessel, J. E., The Young Worker in Agriculture, E.D.C. for the Agricultural Industry, H.M.S.O. 1972, p. vii.

The structure of the thesis is as follows:-

Chapter 1 is an introductory chapter which outlines the major trends in production and farm structure in Scotland since 1945; the changes in the labour force are discussed, along with the effect of Government policy.

Chapters 2 to 4 form a theoretical section. In chapter 2 attention is focussed upon the general labour market. Chapter 3 discusses the concept and determinants of mobility, and chapter 4 relates specifically to the agricultural labour market. This progression of the discussion from the general situation to the specific case gives a broader base to the study.

Chapter 5 describes the area of the study (Fife), and the process of selecting the sample and designing the questionnaires.

Chapters 6 to 9 contain the results of the survey, with accompanying discussion.

Chapter 10 compares the Fife results with other studies and assesses the theoretical implications.

The final chapter presents the summary and conclusions.

CHAPTER I

LABOUR IN SCOTTISH AGRICULTURE SINCE 1945

1.01 Introduction

This chapter will present a review of the changes which have taken place in the Scottish agricultural labour force since 1945. This outline provides the context within which the survey of Fife can be properly considered. A summary will be given of the major changes in output since 1945, the changes which have taken place in farm and enterprise structure, the increased level of mechanisation, and the emphasis of government policy. A consideration of these factors is important since they have a direct bearing on the level of agricultural employment.

THE BACKGROUND SITUATION

1.02 The Changing Pattern of Output

1945-59: In common with the rest of the United Kingdom, Scottish agriculture expanded to meet war time requirements after the sustained period of restraint in the 1930's. The tillage acreage reached a war time peak of 2,120,659 acres in 1943, after which it showed a slight decline. Livestock numbers remained static or declined slightly during the war as a result of shortages of feeding stuff. The graphs[1] show that in the period 1945-59 the acreage of all cereals declined at first, and only by the late 1950's were wheat and barley regaining their former prominence; the decline in oats has persisted to the present day. This reduction in acreage must not be confused with a reduction in total output of wheat and barley. Improvements in seeds, fertilisers and management ensured that yields were greatly improved, more than compensating for the reduced acreage.

1. See Appendix 1.1.A.1 to 1.1.C.

The acreage of potatoes declined[2] throughout this period, and production fell as technical improvements failed to keep pace with this decline.

The number of beef cattle expanded rapidly after 1950, with a growing importance of cattle under two years old.[3] This contrasts with the reduction in the number of dairy cattle, though this decline was not persistent until the end of the 1950's.[4] The changing relative position of the dairy and beef herds reflects traditional and national factors.[5] Ewe numbers received a severe set back in the winter of 1946/7, but thereafter continued to expand until they reached a peak in the early 1960's at just over 3.6 million ewes and gimmers.[6] The pig herd was relatively small at 18,000 in 1945, and fell even further in the next two years under the pressure of feed shortages. After this the herd size rose rapidly to reach 66,000 in 1951, followed by a period of large cyclical changes in pig numbers.[7]

1960-70: After 1960 the acreage and output of barley showed a continued and rapid expansion, passing one million tons by 1965. The acreage of wheat at first retracted, but then increased again under the impetus of the government's selective expansion programme. In 1970 it was still below the acreage reached in 1962, though improved yields had ensured a higher level of production. The acreage and output of oats continued to decline throughout the 1960's. The acreage of potatoes was irregular, but the general trend was downwards.

2. See Appendix 1.1.D.
3. See Appendix 1.1.E.
4. See Appendix 1.1.F.
5. Whitby, H. Some Developments in Scottish Farming Since the War, J. agric. Econ. 21, 1970 p. 8 ff.
6. See Appendix 1.1.G.
7. See Appendix 1.1.H.

There was continued expansion of the beef herd and in the period 1950 to 1970 it increased by more than 300 per cent, surpassing the dairy herd in size in 1966. The period 1961/2 to 1965 witnessed a particularly sharp reduction in the size of the Scottish dairy herd, with a degree of stabilisation after this date. The ewe flock continued to expand in the early 1960's, but then low returns and rising costs forced a decline in total flock size, which persisted until 1970. The size of the pig herd was susceptible to large cyclical changes through the early and mid 1960's, but this was followed by a period of expansion which increased the herd size by 15,000 between 1966 and 1969.

1.03 Structural Changes

Throughout the period there was a trend to fewer holdings and to a larger average size. Units of less than 50 acres were being amalgamated with other farms, and there was a corresponding rise in the number of farms with 300 acres or more. This change was particularly noticeable after 1959. It should be noted that whilst farms of 300 acres plus accounted for only six per cent of the agricultural units in 1968, they accounted for 33.5 per cent of the crops and grass. There was a definite regional concentration of these larger farms with 20 per cent of the farms in the South East having more than 300 acres and accounting for 63.6 per cent of the crops and grass. These changes have had a marked effect on the employment of workers. It means that there is an increasing number of farms below approximately 180 acres which have no employees. The following figures are extracted from a survey of Scottish farms:-

TABLE 1.1

Number of Full-time Workers per Farm, 1952/3 and 1961/2[8]

Full-time farms (Percentage)

	With No Employees	With 2 Employees	With 3 to 4 Employees	With 10 or More Employees
1952/3	18	21.3	19.9	2.9
1961/2	23.2	18.3	15.7	3.0
Percentage Change 1952/3 to 1961/2	+29.7	-14.1	-21.1	+3.4

These trends have continued, and in 1970 59 per cent of full-time farms had no employees.[9]

Besides the consolidation of holdings into larger farms, there was also a concentration of all types of enterprise into larger units. In the period 1960 to 1968 the average annual rate of increase in the size of enterprises was in the range four to nine per cent, with broilers significantly above this figure. In 1960 for example, there were 21,000 registered milk producers. By 1968 this figure had fallen to 12,000. The number of producers with 50 or more cows increased from 11.6 per cent to 23.5 per cent, accounting for 64 per cent of the total herd. Sheep flocks of 1,000 plus, accounting for only 11 per cent of the total flock in 1960, had increased to 22.5 per cent in 1963. In 1965, 10.5 per cent of growers had acreages of barley in excess of 100 acres, accounting for 43 per cent of total barley acreage. By 1968 the number of growers had increased to 15.5 per cent and the acreage controlled to 52 per cent. In contrast, whilst 42 per cent of growers in 1968 had less than 20 acres of barley they controlled only 7.5 per cent of total acreage.

This concentration of enterprises was accompanied by improved management and higher capital investment, reducing the number of workers required per unit. For example, barley grown in a larger scale means

8. Scott. agric Econ. 13, 1963, Table 129.
9. Agricultural Statistics (Scotland) 1970, H.M.S.O., Table 38.

that a farmer can increase field size, employ high capacity machinery and utilise drying equipment, enabling one worker to handle a much bigger acreage. Similarly, the keeping of larger dairy herds means that full use can be made of labour saving machinery, greatly increasing the number of cows per dairy man.

1.04 Increasing Mechanisation

The increased level of mechanisation in Scottish agriculture since 1945 has had a profound effect on the manpower requirements of the industry. The reduction in the average number of standard man days required per holding from 567 in 1962 to 431 in 1968 illustrates this expansion in machinery usage.[10] This was at a time, as the previous section showed, when the average size of both holdings and enterprises was increasing. Certain areas of mechanisation are picked out here as being particularly significant. They are, the introduction of the tractor on a large scale and its continuous technical improvement; the improvements in the harvesting of all crops, not only improving timeliness of operation but reducing some of the major labour peaks in the farming year; and the rapid electrification of farms after 1945, which improved the handling of commodities about the steading, and made possible the improvements in dairying.

In 1939 there were 99,639 horses employed in agricultural work in Scotland and 6,250 tractors.[11] By 1945 these figures were 83,531 and 21,405 respectively, and thereafter the decline of the horse in favour of the tractor was rapid. In 1959 there were 54,527 wheeled tractors of 10 horse power or more, and only 10,281 horses. It is estimated that the reduction in horse numbers between 1939 and 1948

10. The Changing Structure of Agriculture, M.A.F.F., H.M.S.O. 1970, p. 20.
11. Agricultural Statistics (Scotland) 1939, H.M.S.O.

freed 16,000 men from daily and weekend stable work.[12] The qualitative improvement in tractors over the period must not be overlooked. It has meant increased power to operate larger implements, and also that the driver can carry out a wide variety of tasks from his seat which were formerly done by manual labour e.g. ditching and hedging. This has greatly reduced the employment of general workers.

Both increased numbers and technical improvements in harvesting machinery have made significant contributions to the reduction in labour requirements. Typical of this progress is the combined harvester. At first developed to be tractor drawn there were very few in Scotland in 1939. In 1942, 60 combines were recorded and 100 in 1944.[13] The expansion in their use after 1945 was rapid, particularly for self propelled models. The number of tractor drawn ones declined after 1959. In 1971 there were 6,854 self propelled models recorded.[14] Again there has not only been an expansion in numbers but also considerable technical improvements. The superiority of the self propelled combine has freed manpower and reduced harvesting time. Bigger capacity machines have had the same effect. These developments, and similar ones in root crops, have removed many of the labour problems which were very acute at harvest times in the late 1940's and early 1950's.[15]

12. Duncan, J. F. The Labour Problem, J. Scott. Agric. 29, 1948 pp 32,72,146.
13. A Century of Agriculture Statistics, M.A.F.F., H.M.S.O., 1968.
14. Agricultural Statistics (Scotland) 1971, H.M.S.O.
15. e.g. Agriculture in Scotland 1948, D.A.F.S.

The electrification of steadings, a major object of policy after 1945, displaced many manual routines in the handling of stock, movement of feeding stuffs and milking of dairy herds. A measure of the pace of electrification can be seen in the increase in the number of electric motors on Scottish farms from 6,346 in 1945 to 40,822 motors rated at over two horse power, and a further 19,764 rated less than two horse power in 1967.

1.05 The Emphasis of Government Policy

1945 - 54: Every effort had been made by the government to expand agricultural output in the war years. This was pursued through a vigorous scheme of grants, subsidies, the requisition of sports fields, advisory and specialist services and the control of prices and distribution. Manpower was obviously crucial to this expansion and agriculture was designated a reserve occupation. The release of workers to other occupations and the armed forces was carefully controlled by National Service Officers, and a national wage system was introduced. An extra work force of women, foreign workers and prisoners of war were also recruited to assist in this expansion.

The coming of peace brought two problems for the government. The first was a severe balance of payments situation, particularly with respect to the dollar, which made it imperative to find ways to reduce imports of grain. The second was a general world food shortage, which meant that the United Kingdom could no longer rely upon abundant imports of cheap food. The broad object of the government was to ensure a healthy and prosperous agriculture able to provide the necessary part of the nation's food, and a satisfactory rate of return for the farmer and his workers.[16] This was to be ensured through a system of

16. Parliamentary Debates (Hansard) House of Commons Official Report 1945, 414 H.C. Deb Ss, Columns 56, 2333.

controlled markets and guaranteed prices, negotiated in an annual price review. Thus long term confidence in the industry was ensured. These objectives, and the measures to be adopted in achieving them, were incorporated in the Agricultural Acts of 1947 and 1948.

As the summary of changes in output showed, hopes to expand production met with early disappointment. Tillage was reduced, with a subsequent cut back in feed grains which seriously affected livestock numbers. Also the weather played a part in reducing stock numbers e.g. the bad winter of 1947. This gave rise to considerable disquiet both in parliament, and amongst the farming community. As a result of these pressures great emphasis was placed upon expansion, but this was at the expense of efficiency in many cases. Few of the available powers of control were exercised by the government,[17] so that many producers were sheltered from market forces by high prices. Rising costs faced by farmers were met by higher prices, rather than a restructuring of the industry to assist the less efficient producer. There was no clear statement of the desired level of output and the necessary measures to adopt to achieve this target.[18] Nor were the costs to the government at first detailed,[19] and no attempt was made to restrict Exchequer liability through the use of standard quantities and riddle sizes.

The level of agricultural employment was a matter for concern through the late 1940's. In the immediate post war years the continuance of the Women's Land Army and the availability of prisoners of war eased the situation. In 1946 prisoners still accounted for six per cent of the work force in Scotland. Harvest time was still

17. Bateson, F. W. Socialism and Farming, Fabian Pamphlet, 1948.
18. Kendall, M. G. Some Aspects of Agricultural Policy, Polit. Quart. 21, 1950, p. 356 ff.
19. Public Accounts Committee 4th 1950 Session, Reports for Committees, 111, 1950.

heavily reliant on casual labour, and special measures were taken to provide hostel accommodation for school children and other casual workers.[20] The National Wages Board was established on its peacetime footing in 1949, but there was no decision as to the necessary level of manpower and the level of wages required to attract and retain these workers. In fact it is difficult to find any overall recruitment and wage policy being operated by the government.[21] A scheme of apprenticeship training had been started in 1948, under the auspices of the Scottish Apprenticeship Council for Agriculture and Horticulture. Numbers going through this scheme were never high.

The war time Ministry of Food ceased its overall control of production and prices with the decontrol of cereals, feeding stuffs and eggs on 1st August, 1953.[22] The decontrol of all farm prices took place in the Review of 1954.[23] These changes in no way reduced the Exchequers liability, which was estimated at 33 per cent of total government revenues of £900m in 1953.[24] However the system of guaranteed prices and deficiency payments did make government support more flexible than the previous long term price fixing. The 1954 Review emphasised the importance of returning to a free market, and warned against the dangers of continued expansion with no improvement in efficiency. Output could not be expanded indefinitely without regard to the cost.[25]

20. Agriculture in Scotland op. cit.
21. Kendall, op. cit.
22. Annual Review and Fixing of Farm Prices, Cmd. 8798, H.M.S.O., 1953.
23. Annual Review and Fixing of Farm Prices, Cmd. 9104, H.M.S.O., 1954.
24. Cheap Food or Dear Farming, The Economist 6th February 1954, p. 371 ff.
25. Guarantees for Homegrown Cereals, Cmd. 8947, H.M.S.O., 1954, para 11.

1955-60: This period was one in which Exchequer liability showed some sharp increases, but there were also some definite attempts to limit these increases on certain commodities. In 1956 steps were taken to limit the guaranteeing of grain prices to the current harvest, and for livestock prices to run from April to March following the Review.[26] These measures were operated in the 1957 Review[27], but they did not prevent excessive expansion in pig meat, eggs and milk. These trends continued in 1958, and limited cuts were made in the guarantees on these commodities.[28] The extent of possible cuts had been limited to not more than four per cent on any one commodity in any year by the 1957 Agricultural Act.

The impact of these restrictions upon the employment of agricultural labour was slight, since the farmers who suffered the worst reductions in income were small operators, often with no labour outside the family. Attempts were made to improve the farm businesses of these small farmers[29] by capital injections, but no attempt was made to aid amalgamation of farm units to produce viable units capable of employing staff. The growth of a group of small and relatively impoverished farmers tends to produce a very inflexible work force with little occupational mobility. Again no policy was discernible for the recruitment and training of workers, and wages remained as a residual to be determined by the Wages Board.

1961-65 Fears of a meat shortage led to a sharp increase in the livestock guarantees in the 1961 Review.[30] In fact there was over production and the market price of cattle fell, leading to heavy

26. Long Term Assurances for Agriculture, Cmnd. 23, H.M.S.O., 1956.
27. Annual Review and Determination of Guarantees, Cmnd. 109, H.M.S.O., 1957.
28. Annual Review and Determination of Guarantees, Cmnd. 390, H.M.S.O., 1958.
29. Agriculture (Small Farmers) Act 1959, Public and General Statutes 1959, c.12.
30. Annual Review and Determination of Guarantees, Cmnd. 1311, H.M.S.O., 1961.

Exchequer liability in 1962. Deficiency payments on sheep, pigs and cereals were also high in 1961/2. These large expenditures were countered by stringent measures in the 1962 Review[31], which applied quality and weight restrictions and fixed the guarantees at the ruling prices until 1964. In the 1964 Review[32] further steps were taken to limit Exchequer liability by way of indicator prices, standard quantities for cereals, and minimum import prices. These various measures mark these years as a period of attempted restraint by the government.

1965-70 Two definite strands of government policy emerge in this period. One was the move towards a positive restructuring of the industry, with an encouragement to farms with less then 600 standard mandays to amalgamate. The other was a programme of selective expansion, with the object of replacing imports.

The structural question had been discussed since 1945, but had so far largely been remedied by a scheme of maintaining prices on such commodities as pig meat, poultry and dairy products. These measures produced no long term solution as these small farmers simply increased their output in an attempt to maintain income. The government now formulated a minimum desirable size for a commercial farm, of 600 standard man days[33], that is one which will provide sufficient work for the farmer plus one other full time male employee. A system of grants was made available for farmers who gave up units below this size for purposes of amalgamation. These recommendations were enacted in the Agricultural Act 1967. The impact of this policy would be felt most on farms employing no full time employees, though amalgamation of these units would produce farms able to employ workers.

31. Annual Review and Determination of Guarantees, Cmnd. 1658, H.M.S.O., 1962.
32. Annual Review and Determination of Guarantees, Cmnd. 1968, H.M.S.O., 1963.
33. The Development of Agriculture, Cmnd. 2738, H.M.S.O., 1965.

The change which has taken place in the size of the farm work force has already been noted, namely an increasing number of farms either employed no full time workers or employed more than three on their staff.[34] This change is a result of the reduced number of small holdings, and the growing number of larger farms.

The second major aspect of government policy was an emphasis on selective expansion. A primary object was again to ease balance of payments problems, but this time there was also the hope of releasing resources for use elsewhere in the economy. These proposals were formulated in the National Plan[35], which set out production targets for all the major commodities as well as the required resources. It also set out manpower requirements in terms of numbers, skills and training, and stressed the necessary improvements in man management. Agriculture was one of the industries designated as a valuable source of manpower to fill the anticipated gap between demand and supply.[36] Whilst the National Plan was short lived, the programme of selective expansion was set underway in the 1966 Review.[37] There was an attempt to stimulate beef production, both from the traditional beef breeds and via the dairy herd. The standard quantities for cereals were also raised. Expansion did take place in cereals, but beef production rose only slowly. Because of this the government made an "exceptional award" in 1968 to stimulate production.[38]

34. Not just courses, A.H.F.I.T.B. 1971, p. 4.
35. The National Plan, Cmnd. 2764, H.M.S.O., 1965.
36. op. cit. p. 35, para 19.
37. Annual Review and Determination of Guarantees, Cmnd. 2933, H.M.S.O., 1966 para 2.
38. Annual Review and Determination of Guarantees, Cmnd. 3588, H.M.S.O., 1968.

Also in 1968 renewed interest in agriculture's import saving role was strengthened with the publication of the Economic Development Committee's Report on Agriculture.[39] In this report a target was set of £220m per year in imports saved at the end of the expansion period. Again the projected increases in the output of the various commodities were given, with the requirements for extra resources. The net reduction in the labour force was calculated for the period up to 1972, and the implications for the required increases in labour productivity assessed. It was anticipated that labour productivity would have to increase at an average rate in excess of nine per cent per annum to meet the production targets set. This would place great stress on the need for adequate training resources to obtain the necessary skilled labour.[40] Particular shortages might be experienced in dairying and horticulture, with arable farming probably able to compensate for staff reductions because of technical improvements. This report is the most comprehensive attempt to assess the industry's requirements and estimate the availability of manpower. However it gave no exact details of the recruitment and retraining methods, levels of pay and career structure needed.

Another factor affecting the recruitment and training of the industry's manpower was the establishment of the Agricultural, Horticultural and Forestry Industry Training Board in 1966. This body was specifically created to develop a co-ordinated training programme to meet the requirements of agriculture. It runs a variety of in-service training sessions, and has taken over the running of what used

39. Agriculture's Import Saving Role, EDC for Agriculture, H.M.S.O., 1968.

40. op, cit., p. 29 para 76.

to be the Apprentices' Scheme for new entrants. At first considerable hostility was aroused because of the attempts to finance the Board through a levy. The fact that the Board is no longer dependent on a farmers' levy, and its record of running successful courses have ensured that it is now much more accepted by the industry.

These policy decisions mark a growing awareness by the government and the official bodies that continual agricultural expansion is dependent upon a satisfactory level of agricultural employment, both in terms of numbers and quality of workers. The creation of a National Wages Board and its setting of agricultural wages and hours has already been briefly mentioned. Throughout the period since 1945 wages have remained an area of contention, with no clear guidance from the government as to desired level of wages or ways of removing the apparent disparity between agricultural and industrial wages. Wages are discussed in more detail later in the chapter. However, the difference between the wages set by the Board and the average earnings of agricultural workers would seem to indicate that the fixing of wages bears little resemblance to what many farmers are willing to pay. There is a need for the government, having formulated what it considers to be the desired level of output, to decide upon the manpower necessary for this production and to set wages accordingly. This approach is adopted from time to time in such industries as coal mining, and there seems no reason why it should be inappropriate for agriculture.

THE SCOTTISH AGRICULTURAL LABOUR FORCE

1.06 The Size of the Labour Force

It should be noted that the data used in sections 1.06 to 1.12 is drawn mainly from the statistics made available through the Agricultural census taken in June and December. This data is supplemented by the use of such sources as the Department of Agriculture's periodic sample surveys and the work of the Economic Development Committee for Agriculture. The major difficulty in using these statistics is that most of them relate to net rather than gross movements of workers, thus reducing their usefulness for detailed analysis.

The necessity for increased production during the Second World War, as described above, and the operation of such measures as the Control of Engagement Order 1940[41], and the Essential Work (Agriculture) (Scotland) Order 1941 had produced a rise in agricultural employment to a peak of 124,000 in 1943.[42] Also significant contributions were made by the Women's Land Army, and prisoners of war. Unfortunately no separate returns were made for these two categories until December, 1945. In 1946 prisoners of war accounted for 6 per cent of the male full-time work force and the Land Army 10 per cent of female full-time workers.

1945-60: As Appendix 1.2 shows, in 1945 there was a high level of female employment, both amongst full-time (23 per cent) and casual workers (39 per cent). The lack of information on recruitment sources is a serious impediment to qualitative analysis of these figures. It can be suggested, however, that a rise in

41. Control of Engagement Order, Ministry of Labour 1940.
42. Essential Work (Agriculture) (Scotland) Order, Ministry of Labour 1941.

the numbers of male workers was to be expected with the end of the war and the demobilisation of troops. Similarly, the replacement of women by men can be accounted for by this transition to a peace-time situation. The pattern of changes in the number of male workers should also be noted. Falling in the first two years after 1945 it caused a controversy in parliament[43], particularly as prisoners of war still played an important role in the labour force. There were claims that a labour shortage would in fact make the planned expansion of agriculture impossible.[44] The improvement in the numbers of male full-time workers after 1947 led to some suggestions that agriculture would in fact manage to retain its male labour force.[45]

The 1950's were to prove that this was a false hope however. The small net gain shown overall in the previous five years of two per cent gave way over the next five to a loss of nine per cent. Women continued to leave the full-time work force at a high rate but their contribution to the total of whole-time workers did not fall significantly. The rate of net decline slackened again in the latter part of the 1950's, falling to an average annual rate of 1.4 per cent amongst male full-time workers. Amongst full-time women workers the rate of decline eased marginally, as they showed a further slight decline in their proportional representation in the work force.

It is difficult to calculate a rate of change for the part-time and casual work force throughout the 1950's since regular part-time and casual workers were not distinguished before 1954.[46]

43. Parliamentary Debates House of Commons Official Report 1946, 424 H.C. Deb 5s. Column 32 ff.
44. Agricultural Dilemma, The Economist, June 22nd 1946.
45. Duncan, op. cit.
46. Agricultural Statistics (Scotland) 1954, H.M.S.O., p. 60.

Losses amongst male casual employees were particularly heavy, with only a significant increase in the employment of women easing the overall loss.

1961-70: The 1960's showed a rapid increase in the rate of loss of workers, in all categories. Of particular significance for the industry was the loss of male full-time workers, which throughout the decade increased, only showing a reversed trend in 1969. By this date the number of male workers had fallen by 41 per cent of its 1960 total. As Appendix 1.2 shows, the reductions were particularly marked in the years 1964 to 1968. The reduction in the numbers of full-time women, whilst receiving less attention as a possible threat to future production, has continued at a high level. By 1969 their contribution to the full-time work force had been reduced to 7 per cent. Losses amongst regular part-time workers have also been considerable, although not so consistent as those amongst whole-time workers.

The number of casual workers declined at a similar rate though in certain years there have been very heavy losses. The steady decline amongst male casual workers started in 1959 but for women did not get under way until 1962.[47] Numbers of casual workers employed fell by 43 per cent over the ten years, with the heaviest reduction (46 per cent) amongst women. It is suggested that this reduction marks the introduction of machinery into the last strongholds of gang labour, e.g. the number of complete potato harvesters expanded by 550 per cent in the years 1961 to 1967. Such developments in harvesting techniques, along with those made in the early cultivation stages of root crops, must have made a major

47. McIntosh, F. Changes in the Structure of the Scottish Farm Labour Force since 1951, Scott. agric Econ. 17, 1967 p. 57 ff.

contribution to this reduction in numbers. Similarly, improved standards required of farmers by local authorities in the accommodation provided for these casual workers has acted as a disincentive to the further use of gang labour.

1.07 Age Structure of the Labour Force

The age distribution of agricultural workers is very important, since clearly net change in one age group is a major determinant of the inflow of workers to the next age group. It is therefore unfortunate that the published agricultural statistics available for Scotland used only four age groups in the period 1945-67. These were under 18, 18 to 20, 20 to 65, and over 65 years.[48] Since 1967 a more detailed presentation of the data has been made with the divisions as shown in Appendix 1.3B. In due time this will yield valuable data for analysis but as yet the series is too short. Prior to 1967 the statistics can be supplemented by the use of the decennial census (Appendix 1.3A), although there are differences in definition.[49] Reference will also be made to sample surveys carried out by the Department of Agriculture and Fisheries for Scotland. Statistics for age are not generally available for female workers or part-time and seasonal workers.

1945-60: Agriculture has traditionally been the employer of a high percentage of very young workers. The Census for 1931, for example, showed that there was 29.5 per cent of the work force under 20 years. After 1945 one of the first major reductions in numbers occurred amongst the age group under 21.[50] This was balanced by

48. It should be noted that until 1955 the division between men and youths was taken as 21 years, in 1956 it was adjusted to 20 years.

49. Dunn, J. M. Age Structure of Scottish Farm Workers, Scott. agric. Econ. 18, 1968 p. 133 ff.

50. See appendix 1.2.

the return of workers from the armed forces in the age group over 21, and by deferments given to agricultural workers when production seemed in danger. Unfortunately there is no information on the size or composition of gross flows. It seems possible that National Service was the major drain on this youngest age group. Whatever the cause of this exodus of young workers it did in fact bring the age profile more into line with that for other occupations. Table 1.2 shows this:

TABLE 1.2

The Comparative Age Structure of Male Workers and Other Occupied Persons in the 1951 Census

	Under 20	21-24	25-34	35-44	45-54	55-64	65+
All Occupied Persons	9½%	10%	21½%	22½%	19½%	12½%	4½%
Farm Workers (Males)	20 %	10%	21½%	19½%	15%	9½%	4½%

The two profiles are seen to be similar in all but the youngest group. Scola[51] suggests that part of this imbalance continued by virtue of the high proportion of family workers in this youngest age group, since many of these become farmers and thus are never entered in the statistics for older workers. Scola backs up his argument with data gathered in a departmental investigation of wages in the period 1952-4. When family workers are extracted from the male workers only 14 per cent of the hired workers were under 20 years in 1953.[52]

51. Scola, P. M. The Changing Age Structure of the Farm Labour Force, Scott. agric. Econ. 6, 1955 p. 34 ff.

52. Scola, P. M. op. cit. 1955, Table 28.

As Appendix 1.3 shows, the age group 21 years and over had shown a net gain up to 1949. This trend was reversed in the next five years, although conscription was responsible for the continued heavy losses in the younger age group.[53] Table 1.3 provides a more detailed breakdown of these years in the form of index numbers.

TABLE 1.3

Changes in Numbers of Regular Full-Time Male Workers by Age Groups[54]

	1951	1952	1953	1954
Under 18	100	101	98	98
18 - 20	100	82	76	78
21 - 40	100	93	88	88
41 - 64	100	109	107	105
65 and over	100	86	72	68
Total	100	97	92	91

(1951 = 100)

The increased number in the 41 to 64 years age group should be noted. Scola welcomed the strengthening of this age group, but this was the first evidence of the ageing labour force which agriculture now exhibits.[55] The decline in workers over 65 also deserves comment. As Appendix 1.4 shows, the number of workers over retiral age was 5.8 per cent in 1951. This figure had fallen to 4.6 per cent in 1956 and currently stands at around three per cent. In the period from the end of the war until 1951 the employment of these workers had remained fairly stable, their retention ensured by

53. That is 18-21 years.
54. Scola, P. M., op. cit. 1955, Table 29.
55. See Appendix 1.3.

relative shortage of staff. Increasingly, from 1950 onwards, this age group's employment was threatened in two ways. One was the rapid pace of technological development which often made it difficult for these workers to adapt themselves to new techniques. The other was the increasing pressure on farmers to reduce their costs and this meant, as wages increased, either reducing or streamlining the labour force. With either measure elderly workers were at a serious disadvantage.

As Appendix 1.2 shows, the general reduction in the rate of loss of male agricultural workers in the latter half of the decade "reduced" losses in all age groups, excepting that of workers aged over 65 years for the reasons just discussed.

1961-70: The rate of migration increased again after 1960 and this time the effects were seen to a greater extent in the reduction of the age group 21 to 65 years. A more detailed breakdown indicated that further significant changes were in fact taking place within this group. Comparison of Table 1.1 with Appendix 1.3A and B shows that the proportion under the age of 35 fell from 51½ per cent to 42 per cent in 1967. Meanwhile the number of workers aged 55 to 64 had doubled between the Census in 1951 and the Sample Census of 1966. This verifies the trend towards an older work force which was seen developing in the 1950's. It should be borne in mind, however, that this trend reflects the overall ageing of the Scottish male population as shown in this estimate made by the Registrar General (Table 1.4).

TABLE 1.4

The Age Structure of Full-time Male Agricultural Workers Aged 15-64 Years (%), Compared with the Scottish Male Age Structure[56]

	15-19	20-24	25-34	35-44	45-54	55-64
Registrar Guard's Estimate 1966	13	11	19	20	19	18
Agricultural Census 1967	12	12	20	22	34	

The highest proportional wastage has occurred amongst workers in the 15-19 years age group. As Appendix 1.3 shows, this ran at an average of 5.3 per cent in the first five years of the decade and then increased sharply to reach a peak in 1967. Some of this reduction will have been accounted for by the larger number who attended courses of further education at college or university before entering agriculture in the older age group. A large part of it represents the attraction of young people into other employment. The lack of qualitative data on such issues is again a serious disadvantage to detailed analysis of these changes. The slackening in the rate of migration in 1969 sharply reduced the losses from the age group 20-64, but losses from the younger age groups continued at a high rate. Appendix 1.3B shows a stabilising of the 20-64 years age group.

1.08 Regional Changes

Size: Just as the treatment of statistics for workers leaving agriculture by age revealed a varying pattern of out migration, so the breakdown of the data by region, from the global figures, showed a more complex pattern of change. As Maps 1.5 A-F show, the concentration of whole-time male workers reflected very largely the regional differences in agriculture in 1945. In the Highlands, with large areas of rough

56. Dunn, J. M., op. cit. 1968, p. 134.

grazing requiring relatively few workers to look after the stock, and large numbers of crofts employing only the occupant, low density was to be expected. Counties in other regions such as Caithness, Peebles, Selkirk and Bute also had low densities for similar reasons. It should be noted that of these four only Caithness is a crofting county. At the other extreme were the counties with large areas of arable land requiring the densities of labour shows, e.g. Fife and the Lothians. In between are counties whose density of workers largely reflects their place on the spectrum of farming types from cropping through to the extensive livestock system.

Basically the rate of change in the region reflects that seen in the global figures. Hence Maps 1.5A, B show a fairly stable period 1945 to 1950 with some counties in fact showing slight increases, e.g. Argyll, Kinross, East Lothian and Wigtownshire. This changes slowly during the 1950's as the global reduction accelerated then eased off again, before the rate of change accelerated in the 1960's.

As Appendix 1.6 shows, the greatest reduction of male full-time workers occurred in the Highlands and South West regions. The reduction in the number of women employed throughout Scotland was reflected in all regions but was particularly marked in the Highlands. Appendix 1.7 shows that the Highlands were co-equal first with the South West in employing the highest proportion of women in 1951. This matter will be discussed more fully below when considering the question of changes by type of farm. It is instructive to note at this stage that many of the counties showing only a marginal reduction until 1960 have, in the next ten years, shown significant changes, e.g. Fife and East Lothian.[57]

57. Compare Maps 1.5D and F.

Age: As Appendix 1.8 shows in spite of the varying rates of change, between age groups and between regions, the proportionate age distributions have remained much the same. From 1968 the more detailed breakdown of age by region is available and this is presented in Table 1.5 below.

TABLE 1.5

Age Distribution by Region 1968-1970
(Calculated from Data Supplied by Department of Agriculture and Fisheries for Scotland)

1968

	A	B	C	D	E	F	G
Scotland	5.6	5.5	11.0	19.3	22.0	33.6	3.1
Highlands	3.6	4.3	10.4	17.9	20.4	37.5	5.8
North East	5.1	5.5	11.3	22.4	23.8	29.4	2.6
East Central	4.4	4.8	9.5	17.6	24.2	36.9	2.6
South East	4.8	4.4	9.2	16.4	21.3	40.4	3.6
South West	8.0	7.0	13.2	20.0	19.6	29.5	2.7

1969

	A	B	C	D	E	F	G
Scotland	5.1	5.0	11.2	19.6	21.3	32.2	2.8
Highlands	3.9	3.8	10.2	20.0	21.6	37.1	3.5
North East	4.7	4.6	12.6	22.8	23.8	29.0	2.5
East Central	4.4	4.3	9.7	18.8	23.5	36.5	2.7
South East	4.6	4.9	9.8	17.1	20.7	39.3	3.7
South West	7.2	6.7	13.5	20.8	19.7	29.3	2.8

1970

	A	B	C	D	E	F	G
Scotland	5.3	4.8	11.5	20.6	21.9	32.7	3.1
Highlands	4.9	3.8	10.8	20.4	20.8	35.7	3.8
North East	4.9	4.5	11.9	23.4	23.9	28.6	2.9
East Central	4.6	4.2	9.7	19.1	23.7	36.0	2.8
South East	4.6	4.1	10.0	18.1	20.4	39.0	3.8
South West	6.9	6.2	13.8	20.9	19.9	29.2	3.0

(Per Cent)

Note: A - < 18; E - 35 to 45
B - 18 to 20 F - 45 to 65
C - 20 to 25 G - 65 plus
D - 25 to 35

1.09 The Effect of Farm Type

The key to much of the regional distribution of the work force, in terms of numbers, sex and age, is to be found in the regional distribution of farming types. Appendix 1.9 shows clearly the contribution made to the work force by region and type of farm by the family worker. That is, family workers other than the farmer or principal partner and his wife. These should be further compared with Appendices 1.8 and 1.9 and Map 1.14.

The most notable features are the low average age of workers on farms classed as "Rearing with Intensive Livestock" and "Dairy Farms". This compares with the high average age on Hill Sheep and Cropping Farms. From Appendix 1.9 it is clear that farms with livestock enterprises employ a high proportion of family workers. It follows then that since these workers will usually accede to the farm, and so leave the worker statistics, the average age will be kept down. Further, many of these farms are relatively small, requiring only the farmer plus family; hired workers not usually exceeding one in number. Dairying has traditionally employed a high percentage of young workers and much of the work is too arduous for older workers. The increasing pressures of mass milking systems means that this age of "retiral" for dairymen is being lowered. It may now in fact occur as early as 45 years. This, together with the high employment rate for family workers accounts for the high proportion of workers in the lower age groups.

The reverse position on hill and cropping farms may be explained as follows. On the hill farm the employment opportunities for young family workers are low and there is a much higher proportion of hired workers (Appendix 1.9). By the very nature of

the farm these are shepherds and other stockmen, whose average age, because of the experience required, is high. These factors accentuate the skew of the age profile towards a higher average age. Cropping farms have on the whole larger staffs, of which only a small proportion are family workers. This produces the high average age which is further affected by the employment of supervisory staff, such as grieves. As was noted in the case of shepherds, these men are, by nature of the experience required, older than the average for general workers.

Map 1.14 serves to link up the distribution of workers by type of farm with that by region. Comparison of Appendix 1.9 with this map show that the Highlands and South East have high average age ranges because the predominant enterprises are hill sheep and cropping, respectively. It should be noted that whilst a large coastal area of the North West has a predominantly part-time farming population, and hence a high proportion of family workers (Appendix 1.9), the average age is kept up by the migration of the young from the area. Thus the population of the Highland region is showing a higher than average age distribution and this means that the family workers remaining are also older than is usual. The North East and South West have, as predominant enterprises, rearing and dairying - enterprises which employ a high proportion of family workers and young hired workers.

In closing this section it is proposed to take up a point raised in section 1.08 in connection with Maps 1.5D and F. The increased rate of reduction in such counties as Fife and East Lothian since 1960 was mentioned, and it is suggested that this may be explained with reference to the dominant type of enterprise in these

areas[58] and the rate of mechanisation. The 1960's have seen the rapid expansion of the use of machinery particularly applicable to these cropping farms. No similar technological breakthrough has occurred in the hill sheep industry, and wastage here reflects the general run-down of the industry[59] and the pull of other employment.

1.10 Wage Structure and Specialisation Amongst Workers

Prior to World War II farm wages had been determined at the local level through negotiations between the National Farmers' Union and the Scottish Farm Servants' Union. The level of wages had then reflected the prosperity of the industry, the power of the Union in the locality and the availability of alternative employment nearby. East Lothian, for example, was one of the first counties to have a $5\frac{1}{2}$ day week and the level of wages was above that found in the Borders. So diverse were wages rates that recommendations were made for the setting up of Regional Wages Boards to negotiate wages on a more uniform basis. These were set up by an Act of 1937.[60] There were 11 such regional committees operative in 1938, responsible for setting and maintaining minimum wage rates in their own area. This did not of course produce a uniform set of wages for the whole of Scotland (an adult ploughman might receive between 34/6 and 40/- according to area including all perquisites), but it did mean an improvement in the wages of workers in the more remote areas. The committee were not empowered to fix a "normal working week" but they

58. See Map 1.14

59. See Appendix 1.1.G.

60. Agricultural Wages (Regulation) (Scotland) Act 1937
Public and General Statutes 1937, c. 53.

could stipulate the maximum number of hours for which the minimum wage might be paid. By these means the 50-hour week for general workers became standard practice. Also holidays with pay were enforced, and steps taken to ensure that at least three days of the annual week's holiday ran consecutively.[61]

World War II brought an end to the operation of the Regional Wage Committees, and the order controlling employment[62] laid the foundation for the Scottish Wages Board. When Ernest Bevin drafted this order he realised the curb it would put on the movement of labour seeking higher wages, therefore all regions with a minimum wage of less than 39/- were to raise this immediately to 48/- per week. This was the rate for the Orraman (i.e. general worker). A notable feature of Scottish agriculture is the stress upon specialisation, with extra payments made for the responsibility and longer hours attaching to such jobs as shepherd, tractorman or grieves. This means that there is a well established wages structure in Scotland and this contrasts with England and Wales. In Scotland some 75 per cent of workers are classified as specialists[63] compared with about 50 per cent in England and Wales.

Table 1.6 shows how the degree of specialisation has increased since the war. It also shows the rise of the tractormen at the expense of the horsemen.

61. Agricultural Wages (Regulation) (Scotland) Act 1949 Public and General Statutes 1949, c.30.

62. Ministry of Labour, op. cit. 1940.

63. Hendry, G. F. and McEwan, L. V. The Changing Labour Situation, Scott. agric. Econ. 10, 1960 p. 36 ff.

TABLE 1.6

Percentage Distribution of Adult Male Full-time Workers by Job Description [64]

Description of Job	1947/8	1953/4	1958/9
Grieves	7.4	7.5	7.0
Shepherds	7.1	7.4	8.0
Stockmen	15.2	19.3	22.0
Tractormen	15.9	28.9	33.0
Horsemen	22.1	11.3	3.0
All Specialists	67.7	74.9	73.0
General Workers	24.3	17.6	19.0
Others	8.0	7.5	8.0
All Workers	100.0	100.0	100.0

This degree of specialisation has persisted to the present day with the maintenance of the well defined wage structure. Appendix 1.11 summarises the differences in minimum wage, cash earnings and total earnings up to 1970. The minimum wages for the various types of job have continued to be set by the Scottish Agricultural Wages Board. This body has 17 members. Of these six represent the farmers, six represent the workers and five are impartial members nominated by the Secretary of State for Scotland.[65] The minimum wages and maximum hours to be worked for this rate are set out in Wages Orders, published after an agreement has been reached by the Board. The figures relating to earnings in Appendix 1.11 are gathered annually from a random sample of farms by the Department of Agriculture and Fisheries' staff. The size of the sample varies every year, but is in the region of 2,000 on average. The degree of wage drift is clear and the margin has in fact increased over the years. An econometric

64. Taken from Scott. agric. Econ. 10, 1960 p. 37.
65. Wages Act 1949, op. cit.

investigation of this wage inflation has led to the conclusion that the Wage Board's decisions tend to be rather arbitrary.[66] Certainly there is evidence that a great many farmers are paying more than the basic minimum to their workers. A survey in East Lothian put this figure at 97 per cent.[67] In an area with many alternatives for employment to draw away skilled workers the reasons for this premium are self evident. A survey for Great Britain in the years 1967-68[68] based on a one per cent sample of insurance cards showed that 20 per cent of workers leaving agriculture were in construction one year later, 14 per cent went into the distributive trades and 10 per cent into both public administration and miscellaneous services.[69]

1.11 The Development of the Family Farm

The existing method for collecting agricultural statistics means that it is not easy to estimate the number of farmers. Such data is only available through infrequent sample surveys. The world Census of Agriculture[70], 1959/60, showed that there were some 30,000 full-time holdings in Scotland, of which 28,000 were occupied by full-time farmers. There were 10,000 other units which, whilst being below the threshold size for a full-time farm, were nevertheless

66. Cowling, K. and Metcalf, D. An Analysis of the Determinants of Wage Inflation in Agriculture.
Manchester Sch. econ. Soc. Stud. 33, 1965, p. 179 ff.
Determination of Wage Inflation in Scottish Agriculture
Manchester Sch. econ. Soc. Stud. 34, 1966, p. 189 ff.

67. Mackel, C. Labour in Scottish Agriculture
B.Sc. Dissertation Edinburgh University, 1970.

68. Approximate Estimates of the Flows of Employees between Industries
Gazette 78, 1970, p. 303 ff.

69. A more detailed discussion of the comparison of relative earnings and gross-flows is given in ch. 4.

70. Scola, P. M. Scotland's Farms and Farmers
Scott. agric. Econ. 11, 1961, p. 59 ff.

occupied by farmers having no other occupation. In 1967 the number of full-time farmers was estimated at 26,000[71]; a definite decline in numbers but much less than that for full-time workers. The fact that average farm size has increased whilst the work force has decreased means that an increasing number of farms employ no labour outside the family.

This situation was explored in a survey carried out by the Department of Agriculture and Fisheries for Scotland on a sample of 1800 full-time farms.[72] Their findings are summarised in Appendix 1.12. When the sample was raised to the national farm size it was found that the number of farmers and farms had shown only a slight decline over the ten years 1952/3 to 1961/2. The number of workers had, however, declined sharply (Appendix 1.12). For this reason the proportionate increases shown in some of the categories should not be taken as indicating real increases in numbers. It is notable that 23 per cent of the sample farms in 1961/2 employed no full-time workers and that over 50 per cent of the farms had less than two full-time workers. Farms experiencing the largest reduction in staff have been those in the three to four workers size range. It is suggested that this group represents farms of about 300 acres which have been able to economise on the use of labour by means of technical innovations. This will have been particularly true of cropping farms which have benefited most from mechanisation. The table overleaf shows the proportionate distribution of workers amongst farms in 1964.

71. McIntosh, op. cit 1967.

72. Dunn, J. M. Farmworkers' Earnings and the Size of the Labour Force 1961/2.
Scott. agric. Econ. 13, 1963, p. 180 ff.

TABLE 1.7

Full-time Farms by Number of Full-time Hired Workers, 1964[73]

	Number of Full-time Hired Workers						
	Nil	1	2	3	4	5-6	7-9
Percentage of farms providing full-time work for at least one man	30.6	25.5	17.6	9.9	5.9	5.7	3.1

	10-14	15-19	20+	Total
Percentage of farms providing full-time work for at least one man	1.2	0.3	0.2	100.0

This table shows that trends evident in Appendix 1.12 have continued to develop. There has been a further increase in the number of farms with no full-time workers, a slight reduction in those employing over two workers, and marked reductions in the other categories.

Further data was made available in a survey of farms in East Lothian[74] and this is presented in Appendix 1.13A and B. Again the pattern of development is similar, with the largest reductions occurring in farms with 3-6 workers in 1967. Appendix 1.13A shows clearly how the flows of workers have taken place, with farms employing two or less workers showing the largest net gain. Not only are fewer workers being employed but also a greater proportion of them are family workers. In the 1962 survey 40 per cent of the sample farms already employed only family workers. This growth of the family farm is to be expected in a situation of technical

73. McIntosh, op. cit. 1967, Table 41.
74. Mackel, op. cit.

innovation and overall reduction in the work force. The danger inherent in this development is that family workers tend to be less mobile than hired workers.

1.12 Fife in the Context of Scottish Agriculture

A detailed description of Fife is reserved for chapter five, but some introductory comments are made here in the context of the material discussed in this chapter. Map 1.15 shows the farming types of Fife in broad outline. There is a large sector of arable and cropping farms along its northern edge, which spread south around Cupar and into the Neuk. Mixed farms and dairying predominate around its southern edge, whilst there are upland and rearing farms in the central area. Maps 2.5A, B and C show the reduction in the work force which has occurred since 1950. In accord with the Scottish pattern the outflow of workers was only slight in the period 1950-60, and evenly distributed throughout the country. There was a rapid increase in the rate at which workers left the industry in the 1960's. It was noted that this change was particularly marked on arable and cropping farms. These were the farms where technological innovation was able to achieve the best results in saving labour. The map for 1970, when compared with that for 1950, shows that the most significant reductions have occurred in the areas of cropping farms. Analysis of the national statistics indicated that the average age of workers on these arable farms will be higher than those on dairy units.

As chapter five will show, the fact that Fife has farms representative of Scotland's main farming types was an important reason for its choice as the survey area. Within the restrictions of the resources available, Fife offers the opportunity of studying both the impact of forces at work within agriculture, e.g. the rise of mechanisation and the occurrence of redundancy, and of those factors impinging upon the industry from outside, e.g. alternative employment opportunities.

CHAPTER 2

MOBILITY AND THE LABOUR MARKET

2.01 Introduction

It is necessary, before embarking upon any empirical study of the labour market, to be satisfied as to the theoretical framework of the system within which the research will take place. This preliminary object of establishing a theoretical base is not without its difficulties involving as it does the discussion of complex and controversial issues. Also both the theory of the labour market and that of mobility are vast subjects in themselves, so any attempt to bring them together involves the question of what comprises an adequate joint treatment, particularly as theory is expounded in this thesis only as a basis for an empirical study.

That being so, this chapter is divided as follows:-

1. Developments from Adam Smith to the marginalists.
2. The incorporation of marginalist theory into orthodox wage theory.
3. The development of the job opportunity theory.
4. The continuing controversy.

2.02 Adam Smith and Net Advantage

The year 1776 is chosen as a starting point since it was the year in which Adam Smith published his major work, "An Enquiry into the Nature and Causes of the Wealth of Nations". Evaluating the development of the free market economy from the normative regulations of the previous centuries Smith attempted to explain the variability of wages between occupations. His work was to form the basis of classical wage theory.

Smith noted that varied employments have their peculiar advantages and disadvantages. These job characteristics are assessed by both workers and employers, so that if one job was seen to have an

overall net advantage over others it would attract workers. This increased supply of workers moving from other jobs would ensure "that its advantages would soon return to the level of other employments".[1] It should be noted that wages were only one of the advantages attached to a job and also that Smith related this simple model to a society where things were left to "follow their natural course".[2] Smith equally recognised that this state did not exist and he discussed this issue at length in a section entitled "Five counter-balancing circumstances".[3]

In summary form what he said on the variation of wages may be stated as follows:-

1. Some jobs were intrinsically more distasteful than others and therefore required a premium in the wage to make them acceptable.

2. Jobs which required long periods of training generally offered higher wages.

3. Insecure jobs often offered higher wage rates.

4. Responsibility in the job was rewarded by a higher wage rate.

5. Jobs with a high degree of risk, for example lawyers, also carried a high reward.

He also outlined various institutional barriers which inhibited movement to equalise net advantage; for example, restriction of entry to a trade by apprenticeship. These he called, "Inequalities occasioned by the policies of Europe".[4]

1. Smith, A. An Enquiry into the Nature and Causes of the Wealth of Nations, (1st published 1776) ed. by E. Cannan, 1961.
2. Op. cit. p. 111.
3. Op. cit. p. 112.
4. Op. cit. p. 132.

2.03 David Ricardo

David Ricardo's publication of his treatise "On the Principle of Political Economy and Taxation" in 1817 was essentially an attempt to improve upon the theories of Smith and Say[5], with regard to rent and value. It also contained a radical departure from Smith's treatment of the labour market. That is, radical in the sense that Ricardo did not allow for the imperfections of the market as Smith had done; when he refers to "wages" he is thinking purely in terms of money wages and not of net advantage. Such wage differences as exist are not the product of imperfections in the market but of differentials established on the basis of skill and effort. Thus he could write that, "The estimation in which different qualities of labour are held comes soon to be adjusted in the market with sufficient precision for all practical purposes, and depends much on the competitive skill of the labourer and intensity of labour performed."[6]

The supply of labour to industry was said to be dependent upon the numbers in the work-force which in turn was said not to "depend on the quantity of money which he (the worker) may receive for wages, but on the quantity of food, necessaries and conveniences become essential to him from habit, which that money will purchase."[7]

5. Ricardo, D. Principles of Political Economy and Taxation, (1st. published 1817) in 'The Works of David Ricardo', Vol. 1., ed. by P. Sraffa, 1951; Bowley, M. Studies in the History of Economic Theory before 1870, London: Macmillan, 1973, Chapter 6.
6. Op. cit. p. 20.
7. Op. cit. p. 93.

That is, total labour supply to employers is a function of the work-force which in turn is dependent upon the price of food and other necessities. The wage paid to the worker would fluctuate between the "natural price" for labour, that is the wage necessary to keep him alive, fit for work and able to rear the next generation of workers, and the "market price."

This market price will be determined by the laws of supply and demand but will always have "a tendency to conform to it", (i.e. the natural price).[8] Ricardo envisaged that a rise in the market price would encourage a greater population, so increasing competition between workers and thus forcing the market price back towards the natural price. Only by the constant introduction of new capital might the supply of labour be increased without reducing the wage rate below subsistence level.

His treatment of the labour market suffered from its assumptions of perfect mobility and of wage flexibility. Likewise his theory of labour supply suffered from a failure to comprehend the true nature of technological progress. The events of the years succeeding the Napoleonic Wars were to discredit the "Iron Law of wages."

2.04 Mill, McCulloch and the Wages Fund

The first event to discredit the "Iron Law" was the failure of population expansion to continue at the pre-1800 rates in western Europe. Secondly workers did show a gain in terms of real wages. Mill[9], whilst still obviously following the school of Ricardo, was deeply influenced by his acquaintance with and acceptance of the

8. Op. cit. p. 94.
9. Mill, J. S. Principles of Political Economy, (1st published 1848), 1902.

utilitarian philosophy. He saw the dangers of a return to a subsistence wage but did not regard this as inevitable. It was a thing which could be avoided by careful control of the marriage laws, family size, etc.[10] He abandoned the concept of a single subsistence wage which must prevail under all conditions. Instead the level of wages depended "mainly upon the demand and supply of labour; or, as it has often been expressed, on the proportion between population and capital."

This last clause contains the element which distinguishes the writings of Mill and McCulloch[11] from the earlier classicists. This was the development of a proportional ratio between population and capital to explain the level of wages paid, i.e. wages were determined by the amount of capital available to pay them. Wages would rise only to the point where they equalled the total capital fund divided by the number in the work-force. To quote McCulloch's example[12]: If a country's capital consisted of ten million quarters of wheat and there are two million workers, then each worker would receive five quarters of wheat as his reward. Clearly this is meant as a simple illustration, but equally clearly these writers held that "if capital and population continue the same, or increase or diminish in the same proportion, no real variation will take place in the amount of wages."[13]

Differences in relative wages were explained much in the same way as Adam Smith had tried to do. McCulloch[14] in fact cites Smith's examples of trades which carry wages different "from the general average." That is, whilst wages appear to differ greatly

10. Op. cit. p. 99.
11. McCulloch, J. R. Principles of Political Economy, 1848.
12. Op. cit. p. 279.
13. McCulloch op. cit. p. 381.
14. Op. cit. p. 365.

between similar jobs this was more apparent than real. The advantages and disadvantages of different jobs meant that wages in all occupations "are very nearly the same."[15] From this it was naturally assumed that workers would move to any job offering higher advantages until wage and/or employment equilibrium was once more restored.[16]

In successive editions of his "Principles" (first published in 1848), Mill sought to develop the 'Wages Fund' theory. In fact his attempts to make the theory more adequate only served to weaken its position seriously. By the time of the sixth edition (published 1869) capital had been divided into fixed and circulating capital.[17] Wages were to be paid out of circulating capital, but "not even the whole of that, but that part which is expended in the direct purchase of labour;"[18] the rest of the circulating capital being expended in the variable costs of production. Mill, however, still referred to the portion going to labour as the wages fund.

This position was maintained in all editions of his "Principles" in spite of his virtual disavowal of his position in two magazine articles written in 1869.[19] These were written in reply to Thornton's essay[20] "On the Opportunities of Labour." Mill stressed the importance of trade unions in determining wage levels and gaining the best conditions for workers. True he by now regarded his wages fund theory "as eliptical, and not as a literal statement of the entire truth." But he immediately goes on to say

15. Op. cit. p. 364.
16. Op. cit. p. 364.
17. Op. cit. Book 1, chap. 6.
18. Op. cit. p. 207.
19. Mill, J. S. Thornton's "On Labour and Its Claims", Fortnightly Review 11, 1 May 1869, p. 550 ff.
20. Thornton, W. I. On the Opportunities of Labour, 1868.

that, "With these limitations of terms, wages only depend upon the relative amount of capital and population, but cannot, under the rule of competition, be affected by anything else."[21] Thus, whilst Mill had set out to find a theory of the demand for labour, his wages fund theory was foundering. Mill's age rather than his satisfaction with the 'Wages Fund' theory is a possible explanation of his failure to improve upon his wage theory.[22]

2.05 Karl Marx - A Political Interpretation

In between Mill's inadequate 'Wages Fund' theory and early marginalist wage theories of the 1870's appeared Marx's major work, "Das Kapital."

The first volume of "Das Kapital" was published in 1867, with the two remaining volumes being published posthumously in 1885 and 1894. His purpose in writing, and his economic analysis, must be understood in terms of his social and political interpretation of history. He was essentially setting forth the capitalists' position in order to demonstrate its inherent weaknesses and inevitable overthrow by the rise of the proletariat. Marx attempts to demonstrate that the output of workers is appropriated by capitalists, who can keep wages low since there is always a 'reserve army' of unemployed workers.

It is difficult to disentangle from "Das Kapital"[23] what was Marx's view on labour mobility and wage-differentials. Remarks in this direction are implicit rather than explicit in Marx's discussion and this is a possible reason for them being overlooked, e.g. Kerr's silence on this topic when discussing Marx.[24] An example is Marx's

21. Op. cit. p. 207-8
22. Blaug, M. Economic Theory in Retrospect, 1964.
23. Marx, K. Das Kapital, (1st published 1867-94). Translation from the 4th German edn. 1930.
24. Kerr, C. Marshall, Marx and Modern Times, 1969.

treatment of the "time-wage"[25] which is basically the classical position on the labour market and the allocative role of wages. He states that competition amongst workers will reduce wages if supply exceeds demand and, implicit in this, is the concept of a highly mobile work-force. In support of this argument he cites a report by a factory inspector that "should a factory worker refuse to work the customary number of hours, 'he would very shortly be replaced by somebody who would work any length of time, and thus be thrown out of employment.'"[26]

Marx's belief that the price setting mechanism of the commodity market may be applied to the labour market is in fact quite explicitly stated in a series of lectures on "Wage Labour and Capital;"[27] with its corollary of competition amongst workers and ease of movement between jobs. He believed that wages moved towards a common equilibrium point so that the "same wages are paid for the same kind of work."[28]

Whilst holding a form of the doctrine that the supply price of labour tended to a subsistence level, Marx was not so inflexible in this belief as Ricardo and his contemporaries. He saw wages as varying between the minimum necessary to survive in a fit state to work and produce a new generation of workers, and the maximum that capitalists were able to pay and remain solvent. The price at which the worker supplied his labour would depend on his bargaining power. Because this position was weak wages tended to be elastic downwards.[29]

25. Marx op. cit. p. 599.
26. Marx op. cit. p. 599n.
27. Marx, K. Wages, Labour and Capital; originally published in Neue Rheinische Zeitung, April 1849. Reprinted in 'Marx, Engels - Selected Works' Vol. 1, 1950.
28. Marx op. cit. 1930, p. 605.
29. Kerr, C. op. cit. p. 58.

A concluding paragraph of Marx's 'Wages, Labour and Capital' sums up his theories of the labour market and labour supply; "The more productive capital grows, the more the division of labour and the application of machinery expands, the more competition amongst workers expands and the more wages contract."[30]

Marx's labour market predictions have not been fulfilled. Barriers to movement between jobs do exist so that the same wage-rate for the same job, even within the same locality, is rare; wage differentials have failed to play the allocative role implicit in Marx's treatment of the subject. Turner[31], in his review of "Wages and Labour Mobility",[32] makes reference to the growing realisation of this fact in Eastern Europe, and the subsequent movement away from a system of price differentials as one of the prime allocators of labour.[33]

2.06 Marginalist Wage Theory

The theory of marginality is variously attributed to a German (Johann von Thunen, 1826), an Austrian (Karl Menger, 1871), an Englishman (Stanley Jevons, 1871), a Swiss (Leon Walras, 1874) and an American (John Bates Clark, 1881), who possibly were unaware of each other's thinking. A central concern of marginalist theory is the determination of product prices. The price of any one unit of a commodity will depend upon the price the consumer is prepared to pay for the last unit he buys, a measure of the value or utility attaching

30. Op. cit. p. 96.
31. Turner, H. A. Wages and Labour Mobility; A critique, Econ. J. 76, 1966, p. 639 ff.
32. Wages and Labour Mobility, ed. by Prof. P. de Wolff. Organisation for Economic Co-operation and Development (O.E.C.D.), 1965.
33. Turner op. cit. p. 640.

to the last or marginal unit of consumption.

A prominent marginalist, J. B. Clark, who asserted that, "Supreme importance attaches to one economic problem - that of distribution of wealth amongst different claimants",[34] used this new theoretical approach in expounding the determination of wages and income distribution. At first used as a theory of the demand for labour, it was stated that an employer will only employ an extra worker if the wage does not exceed the value of marginal product. Clark called this marginal product of labour the 'specific product of labour'.

It was left to Alfred Marshall to attempt to link together supply and demand in the determination of wages. To stress one at the expense of the other was wrong for one "might as reasonably dispute whether it is the upper or the under blade of a pair of scissors that cuts a piece of paper, as whether value is governed by utility or cost of production. It is true that when one blade is held still, and cutting is effected by moving the other, we may say, with careless brevity, that the cutting is done by the second; but the statement is not strictly accurate, and is to be excused only so long as it claims to be merely a popular and not a strictly scientific account of what happens."[35]

Marshall realised the complex nature of supply with the need to account for the rearing of a child, educating him and giving him job training. Without this, "the doctrine that the earnings of a worker tend to be equal to the net product of his work, has by itself no meaning."[36] His theory of the short run supply curve for

34. Clark, J. B. The Distribution of Wealth: A theory of wages, interests and profits, (1st published 1881), 1900.

35. Marshall, A. Principles of Economics, 8th edn. Reprinted 1961, Book 5, chap. 3, p. 290.

36. Op. cit. Book 6, chap. 1, para. 7.

labour closely followed that developed by Jevons.[37] This theory of the disutility of labour has been referred to as Jevons' "most important contribution to the main stream of neo-classical economics."[38] It implies that all work comprises two elements. Firstly there is the side to work which is 'unpleasant', that is having to actually carry out tasks, forego leisure activities and suffer tiredness. Secondly there is the more satisfactory side to work of the remuneration gained and the possibility of status through success in the job. Jevons, and Marshall after him, envisaged the worker pursuing his job as long as the satisfaction gained out-weighed the disutility of working. It was assumed that the disutility of the job at first decreased, but longer hours would mean a growing 'dissatisfaction' with the job. The exact number of hours worked would be decided when the utility of the product of labour equalled the disutility of that labour. Marshall[39] held that the possibility of varying the intensity of work, the use of piece-rates and over-time made such a balance of utility and disutility feasible for the worker.

Marshall realised that there were many exceptions to the general treatment of the labour market as an extension of the commodity market; so that these exceptions "though not fundamental from the point of view of theory, are yet clearly marked, and in practice often very important."[40] Also he recognised that whilst "the worker sells his work" yet "he himself remains his own property."[41]

37. Jevons, S. Theory of Political Economy, 1871.
38. Blaug, M. op. cit. p. 289.
39. Op. cit. Book 6, chap. 2.
40. Op. cit. p. 280.
41. Op. cit. p. 466.

Marshall's treatment of the effect of supply and demand on the level of wages and the mobility of labour was a very ideal picture of the labour market.[42] Workers were considered to be highly mobile,[43] competing with one another for the available employment. Differences in wages were apparent rather than real. An examination of their nature would reveal that they resulted as rewards to the varied efficiency of individual workers. Within a given region wages paid to workers on the basis of similar efficiency would tend to equality. Marshall's statement that "the facts tend to prove the effectiveness of competition"[44] is very similar to Ricardo's concept of "fair and free competition of the market."[45]

It was illustrated above how the supply price for labour was a measure of the utility gained set against the costs involved, e.g. training, exhaustion and monotony. Further, the demand price is determined by the marginal productivity of labour.[46] The level of wages therefore resulted from the co-ordinate influences of supply and demand. Marshall is keen to deny that marginal productivity is by itself a sufficient theory of wages[47] although, assuming competition, he asserts that the factors of production will be allocated according to their marginal efficiency.[48]

Like Adam Smith, he stressed the use of net advantage rather than solely wage-rates "in calculating the benefits of any employment."[49] However, he did recognise the limitations of this concept. The worst

42. Op. cit. Book 6, chap. 3.
43. Op. cit. p. 180/1.
44. Op. cit. p. 455.
45. Ricardo op. cit. p. 103.
46. Marshall op. cit. p. 442.
47. Op. cit. p. 430.
48. Op. cit. p. 432.
49. Op. cit. p. 61.

working conditions were not always balanced by higher wages as the theory of net advantage would assume. Some workers found it so difficult to obtain any form of employment that they were only too glad to take jobs with both bad conditions and poor wages.[50] In this Marshall is echoing the sentiments of J. S. Mill.[51]

Marshall recognised that there were certain barriers to mobility but limited these to two cases. These were the father/son tradition in occupations and the wish not to leave "old associations including perhaps some loved cottage and burial ground."[52] The passing of trades from father to son was considered by Marshall as the prime reason for any rigidity in the market, with inertia resulting from associations adopting a secondary role. He appears to accept the principle behind Mill's use of the concept of non-competing groups,[53] but did not regard the divisions between the groups as so abrupt or impenetrable as did Mill. Instead of four divisions between the groups Marshall envisaged groups "resembling a long flight of steps of unequal breadth, some of them being so broad as to act as landing-stages."[54]

Marshall's theory of the supply of labour being governed by the disutility of work performed is open to question. Only in a few cases of piece-work are workers able to balance utility against the dissatisfactions of the work. In most cases workers are expected to commit themselves to a set number of hours and may even be expected to work over-time as a 'normal part' of the job. Earnings may well be high but the worker would forego part of these in return for greater leisure if that were possible. If the worker desires

50. Op. cit. p. 464.
51. Op. cit. Book 2, chap. 14, para. 2.
52. Op. cit. p. 471.
53. Mill op. cit. Book 2, chap. 14, para. 2.
54. Op. cit. p. 181n.

shorter hours he may well have to leave the job since many modern continuous processes do not lend themselves to some workers substituting leisure for work. This fact may well explain the high level of absenteeism and unpunctuality in some jobs. That is the worker does not want to leave the job yet he finds that he cannot easily substitute leisure for income within the 'legitimate' job structure. He therefore absents himself without warning and accepts the reduced earnings in return for a day of leisure. Further the disutility of any particular job is not simply a function of the number of hours spent at it or the intensity of the work carried out. One must also take into account the conditions under which the work takes place and the quality of work expected of the worker.

Marshall's model of the labour market must be recognised for a statement of the ideal rather than of the actual situation. Marshall's emphasis of the father/son relationship has been seriously weakened by the spread of education and the improvements in mass communications.

As early as 1935 Wicksteed, whilst holding to a neo-classical theory of the labour market, had indicated the importance attaching to education as a "great sorting machine for adjusting opportunities to capacities throughout the whole population."[55] He envisaged that education would cause such movements of workers from monotonous jobs to jobs of more attractive nature so that the marginal product of labour would be raised in the former and lowered in the latter. Wicksteed's suggested development of education in the labour market has not been completely fulfilled but there has been a marked decline in 'craft occupations' and an increase in inter-generational mobility.[56]

55. Wicksteed, P. The Commonsense of Political Economy 1935.

56. Stacey, B. G. Inter-generational Occupational Mobility in Britain, Occup. Psychol. 42, 1968, p. 33 ff.

Marshall's secondary barrier to movement, namely the attractions of staying in the known environment, was not fully developed by him. He did not appear to realise the true potency of attachments formed with jobs and friends in preventing mobility. The strength of this attachment has been demonstrated by the empirical work discussed below.[57]

Further Marshall failed to recognise the importance of institutional barriers to movement. He strongly attacks those who suggest wage differences reflect such barriers.[58] Cliff Leslie is singled out for particular mention yet he was but one of a growing school of institutionalists, e.g. Webbs and Veblen. These writers, in attempting to build up a theoretical framework from actual observations, attacked the assumption that the market for labour was perfect and that mobility could be assumed. This point has been taken up by Kerr[59], who sees the "craft as a 'guild' and the factory as a 'manor'",[60] with the result that workers do not compete openly with each other but are split into groups by these barriers of work norms and union rules. Great disparities in wage-rates are evident and any competition there is tends to be between groups of workers to maintain wage-differentials. Thus there is not one market rate but many markets with many rates. Net advantage is not wholeheartedly pursued.

Finally it might be said that Marshall conceived of workers being drawn to a particular employment by its attractiveness.[61]

57. See section 2.09 on Job Opportunity Theory.
58. Op. cit. Book 6, chap. 3.
59. Kerr, C. The Balkanisation of Labour Markets, in Labour Mobility and Opportunity, 1954.
60. Kerr op. cit. 1969, p. 58.
61. Op. cit. Book 1, chap. 4. para. 2.

Whilst it would appear that "the more realistic concept of labour mobility is that most people most of the time respond to a 'push' than to a 'pull'."[62]

2.07 The Neo-classical Model

Marshall's concepts were developed to form the orthodox neo-classical theory of the demand for labour. Attempts to hold together supply and demand were less rigorous, and abstraction was common, with Marshall's geometrical models being used extensively and developed. Pigou is typical of this school of thought.[63]

The neo-classical position might be stated briefly thus. With a given work-force in a region at any one time the level of wages will depend upon the size of that work-force in relation to demand. Excess demand will raise and excess supply will lower wages, other things being equal that is. Further, any group of workers of similar skills will receive a similar wage equal to their marginal product. The point where wages equal marginal product is the point of equilibrium because profit-maximising employers can add to profits by increasing demand for labour, despite competition for labour forcing up wage rates, until the cost of employing the marginal worker, his wage rate, equals the value of his output - the marginal revenue product. Unemployed workers competing freely for jobs will drive wages below the level of marginal product, encouraging employers to take on more workers until the excess demand for labour brings the wage rate back to marginal product. Even in the face of the historical evidence of the 1930's Pigou could write, "If thorough-going competition prevailed amongst wage earners it is evident that ... for any given state of demand wage-rates would be

62. Kerr op. cit. 1969, p. 58.
63. Pigou, A. C. Lapses from Full Employment 1945, p. 8.

adjusted in such a way as to secure full employment. For so long as anybody is unemployed he will offer himself for employment and, in order to secure it, will beat wages down - if beating down is necessary - until it becomes profitable for employers to engage the services of everybody who is offering them."[64] Wage differences and unemployment were traced to labour's lack of geographical mobility and imperfections in the market.[65] Despite Marshall's belief in the existence of the perfect market (noted above), Pigou refers to Marshall as the supreme authority for his views of the labour market.[66] Pigou, paradoxically, holds to the orthodox theory of the labour market whilst allowing for imperfections in geographical mobility. He was possibly influenced by the institutionalists more than by Marshall.

Whilst the neo-classicists continued to hold to their theory of the labour market, with its assumptions of free mobility, competition between the workers and equilibrating wage-rates, the behaviour of the labour market in the 1930's encouraged economists to emphasise the distribution of job opportunities as an explanation of mobility. Mobility was no longer to be accepted as an assumption underlying the neo-classical position nor as the process whereby irregularities in wages were to be equilibrated.

2.08 Later Explanations of Labour Mobility

Beveridge[67] asserted that labour moved to the place where it could find employment. There had to be a job vacancy created by a general state of prosperity in the country, and not simply a lowering

64. Op. cit. p. 18.

65. Pigou, A. C. Employment and Equilibrium, 1941, Part 2, chap. 6.

66. Pigou op. cit. 1941, p. 47.

67. Beveridge, W. H. Full Employment in a Free Society, 1944, p. 85.

of wages, as posited by Pigou. Beveridge also recognised the importance of social barriers to occupational and geographical mobility.[68]

Some of those who followed Beveridge, for example Lerner,[69] still held to wages as the main allocative force for labour. Thus, whilst holding that it is "relatively higher wages that are significant" in determining mobility,[70] Lerner also wrote that such mobility could be greatly increased "if full employment made movement less risky."[71]

In opposition to this view might be cited Joan Robinson[72] who stressed the importance of job certainty at the expense of differences in real wages. On the other side of the Atlantic, Spengler had already stated that "the volume of migration, in the absence of legal barriers to migration, is conditioned by inter-regional differences in the availability of economic opportunity and, as E. G. Ravenstein long ago noted, by distance."[73] Ravenstein[74] had written a pioneering paper on migration in the 19th century in which he gave a detailed analysis of the 1871 and 1881 census data.

The formulation of this position and of those[75] who held similar views owed much to the number of empirical studies carried out in this period. Prominent amongst these was Lloyd G. Reynolds.[76]

68. Op. cit. p. 87.
69. Lerner, A. Economics of Employment, 1951.
70. Op. cit. p. 213.
71. Op. cit. p. 23.
72. Robinson, J. Essays in the Theory of Employment, 1953.
73. Spengler, J. J. Population Theory, in A Survey of Contemporary Economics Vol. 2, ed. by B. F. Haley, 1951.
74. Ravenstein, E. G. The Laws of Migration, Jl. R. statist. Soc. 48, 1885, p. 227 ff.
75. e.g. Raimon, R. L. Labor Mobility and Wage Inflexibility, Amer. econ. R. 54, Papers and Proceedings, 1964, p. 133 ff.
76. Reynolds, L. G. Economics of Labour, in A Survey of Contemporary Economics Vol. 1 ed. by H. S. Ellis 1948, p. 273.

Reynolds typified the growing support for the job-opportunity thesis. That is the view which states that the worker will only usually move voluntarily if he is assured of the prospect of a new job. He may well move to improve his wage or to better his position but these factors are not the prime motivation for his move. Without secure job-opportunity he will not attempt to move and when he does it will usually be along "lines of personal contact."[77] It follows from this that high wages cannot be used to attract workers into an area unless job-opportunities are good. The neo-classical view that workers compete with one another for the available jobs so that employers can lower wages until all available workers are employed was rejected.

2.09 The Present Conflict in Labour Market Theory

Most of the present dispute is concerned with the opposing views of the supporters of the neo-classical theory and the more modern job-opportunity theory.

The Neo-classical Position: This position is supported by Simon Rottenberg.[78] He does however note the dichotomy between the model and the real world,[79] and points to Smith's recognition of this. Ricardo and his successors' neglect of this distinction is ignored by Rottenberg. Modifications to the classical model dealt with by Rottenberg include the worker's reaction to ignorance of job conditions,[80] job security[81] and the ability to make a rational choice between jobs.[82] He is keen to answer the criticism of those who have

77. Reynolds, L. G. The Structure of the Labor Markets, 1951.
78. Rottenberg, S. On Choice in Labor Markets - Industr. Lab. Relat. R. 9, 1956, p. 183 ff.
79. Op. cit. p. 184.
80. Op. cit. p. 192.
81. Op. cit. p. 195.
82. Op. cit. p. 197.

carried out the empirical research into local labour markets, and to some extent succeeds in this. In other cases, e.g. the rational choice of jobs, he is answering points which many critics of the orthodox position accept or do not question.[83] However it is felt that his arguments are only effective if one accepts strict use of the concept of net advantage. This is Smith's original concept and one which may not be entirely at variance with that of job-opportunity, since to move with the certainty of another job is to attempt to maintain or improve one's net advantage. The major conflict of ideas occurs when his concept of net advantage is measured purely in terms of money wages and movement is alleged to take place to balance wage differentials. Rottenberg's position has also been attacked as being tautological by Lampman.[84] That is, Lampman claims that the predictive power of the orthodox theory is non-verifiable;[85] for whether the worker chooses the clean or dirty job he may be said to have maximised his net advantage.[86] There is no way of predicting which way he will choose.

Lester accepts the shortcomings of the orthodox marginal product theory,[87] but points out the failure of its opponents to derive a satisfactory alternative which is "as rigorous and elegant (a) type of analysis."[88] This contrasts with his earlier but somewhat weak attack upon the traditional position.[89] The basis for his criticism has been a survey amongst manufacturing industries in the United States which exhibited north-south wage-differentials. No

83. Bluestone, A. Job Finding and the Theory of Job Choice, Monthly Lab. R., 1955, p. 1139 ff.

84. Lampman, R. J. Communication: On Choice in Labour Markets, Industr. Lab. Relat. R. 9, 1956, p. 629 ff.

85. Op. cit. p. 634.

86. Op. cit. p. 632.

87. Lester, R. A. Economics of Labour, 2nd ed. 1964.

88. Op. cit. p. 280.

89. Lester, R. A. Shortcomings of Marginal Analysis for Wage Employment Problems, Amer. econ. R. 36, 1946, p. 63 ff.

indication is given as to whether the survey was carried out to ensure a random sample, and also the response rate was poor - only ten per cent of the sample replies were usable. Many of the questions were not amenable to rigorous statistical analysis and no indication is given of confidence limits.

The inadequacies of Lester's article were stated by Machlup[90] as:

1. The weaknesses inherent in a mailed questionnaire;

2. The questionnaire compared a series of factors rather than measuring the effects of varying one factor whilst holding the others constant;

3. Most of the factors Lester chose to measure were those essential to the analysis he was seeking to disprove;

4. There was only poor definition of the variables used and inconsistent application of these definitions.

Robertson[91] gives a straight forward statement of the neo-classical position with the underlying assumptions that marginal product declines and is measurable,[92] and that competition is perfect. He appears to hold to this position whilst allowing for social and institutional factors. By contrast, Mishan[93] restates the neo-classical position, showing how the marginal productivity analysis, which is essentially micro, can be drawn from a classical macro monetary model. He argues that the demand curve for labour is

90. Machlup, F. Marginal Analysis and Empirical Research, Amer. econ. R. 36, 1946, p. 547 ff.

91. Robertson, D. J. The Economics of Wages, 1961, chap. 5.

92. The discussion of the problems encountered in measuring capital is kept until chapter 4.

93. Mishan, E. J. The Demand for Labor in a Classical - Keynesian Framework, J. polit. Econ. 72, 1964, p. 610 ff; See also Fisher, M. R. The Economics of Labour, 1971, who defines one of his major objectives as 'to show how, analytically, many of the conspicuous characteristics of the labour market, both at a moment of time, and over time, can be explained by a straightforward application, with extensions, of the neo-classical general equilibrium theory.' p. 132.

"primarily derivable from the effective demand for goods,"[94] and seeks to disprove the necessity of assuming:

1. Perfect competition;

2. Diminishing marginal product to explain the demand for labour within the classical framework.

Using the Cambridge monetary equation $M^s = kpY^*$ (Where M^s is the stock of money; k is a constant; p is price; and Y^* is real income), which he says is valid for a monopolistic as well as a competitive situation, he suggests that any increase in stock of money with prices unchanged or reduction in prices will increase real effective demand E^*, and therefore real income Y^*. The effective demand for goods determines the effective demand for labour so that "it is the absolute, or money, level of prices that is the operative factor in determining the demand for goods and therefore for labour."[95] He emphasises that even in this restatement the assumption that wages are flexible is still critical to the working of the macro monetary model.[96]

The neo-classical position has also received support from empirical research. Myers concludes[97] after a survey of the empirical work carried out to that date, that their findings may have been biased by the prevailing economic conditions. That is, the strong attack upon the orthodox position mounted in the years after 1936 was based upon research carried out in periods of extreme unemployment. He cites a study of six cities carried out in more

94. Op. cit. p. 610.

95. Op. cit. p. 611, 612.

96. Op. cit. p. 612; but see Reddaway, W. B. Wage Flexibility and the Distribution of Labour, Lloyds Bank R. 54, 1959, p. 32 ff.

97. Myers, C. A. Labor Market Theory and Empirical Research, in The Theory of Wage Determination, ed. by J. T. Dunlop, 1958.

normal conditions. This does not leave the issue so clearly in favour of the job opportunity theory. Bunting[98] produces evidence in support of the orthodox theory, but in fact his data supports the job opportunity theory equally well, as workers moved away from the rural south of the United States into higher employment areas.

The American economist Gallaway[99] adopts a similar position to Pigou. In general he supports the neo-classical theory, but follows Stouffer[100] and Isard[101] in seeking to emphasise the importance of distance and institutional barriers to movement. He estimates that a sum of $ 600 - 800 is of the right magnitude to encourage a workman to cross a regional boundary. Lansing and Morgan[102] seek to support the neo-classical theory by claiming that researchers have often confused "the effects of mobility with the effects of disadvantages which the mobility reduced but could not eliminate."[103] It should be noted, however, that Lansing and Morgan's research data appears to have been concerned with people

98. Bunting, R. L. A Test of the Theory of Labor Mobility, Industr. Lab. Relat. R. 15, 1961/2, p. 75 ff.

99. Gallaway, L. E. Labor Mobility, Resource Allocation and Structural Unemployment, Amer. econ. R. 53, 1963, p. 694 ff; Industry Variations in Geographical Mobility Patterns, J. hum. Relat. 2 (4) 1967, p. 449 ff.

100. Stouffer, S. A. Intervening Opportunities Relating Mobility and Distance, Amer. sociol. R. 45, 1940, p. 845 ff.

101. Isard, W. Distance Inputs and Space Economy, Quart. J. Econ. 65, May and August, 1951, p. 181 ff, and p. 373 ff.

102. Lansing, J. B. and Morgan, J. N. The Effect of Geographical Mobility on Income, J. hum. Relat. 2 (4), 1967, p. 455 ff.

103. Op. cit. p. 460.

moving from extremely poor rural or low income areas where educational facilities and other amenities were poor.

The theory of monopsony in the labour market is also allied to the neo-classical position. The firm is at least a potential monopsonist in its hire of labour given that there are but one or two large-scale hirers of labour in an area, unionisation is low, job information is scarce and/or unemployment is high.[104] Faced with the upward supply curve for labour, it will seek ways of cutting back labour, thus reducing the effective wage rate and lowering labour costs. Bronfenbrenner stresses that this monopsonistic power is in most cases only potential. A state of affairs which is evidenced by the "use of rules, rituals, and routines to solve the problems which would be solved by a market mechanism in a competitive economy or by judicious marginal type calculations in an overtly monopsonistic ... one."[105]

The major weakness in this position is that large firms either choose not to act as monopsonists or are prevented from doing so by union pressure. Their wage scales tend to be amongst the highest paid, and if agreements are entered into with other firms as to wage levels this is to prevent poaching of labour rather than to keep wages down. Similarly, attempts to expand the work force without using the traditional method of wage increases says more for the effectiveness of other methods of recruitment than for attempts at monopsonistic control.

The Job Opportunity Theory: This theory has been developed with a growing recognition that, whilst by constant processes "wage rates are changing and individuals are moving amongst jobs,

104. Bronfenbrenner, M. Potential Monopsony in Labor Markets, Industr. Lab. Relat. R. 9 1955/6, p. 577 ff.

105. Op. cit. p. 579.

the two processes may or may not be closely connected."[106] A considerable theoretical as well as empirical onslaught was mounted on the neo-classical position.

Kerr[107] went on to write "there is some real question as to how effective a wage structure can be in distributing labour in any event. Wages are only one of several important considerations which repel workers from some jobs and attract them to others. The push of unemployment, for example, is often more effective than the pull of higher wages." Kerr went on to develop these ideas in his contribution to 'Labour Mobility and Economic Opportunity'.[108] Essentially, in his concept of noncompeting groups he is adopting the ideas first put forward by Cairnes in 1874.[109] That is, the total labour market is split into balkanised or noncompeting groups by union rules, seniority ratings, social strata, etc. This effectively limits the power of wages to locate labour and means that wages tend to be inflexible downwards.

The displacement of flexible wages as the prime allocator of labour was followed by attempts to replace this with the concept of equitable wages. For example, Fogarty[110] suggests that equitable wages might be more effective in distributing workers than attempts to maintain flexible wage rates; thus operating upon the demand for labour rather than the supply. A similar proposition had already been

106. Kerr, C. Labour Markets: Their character and consequences, Amer. econ. R. 40, Papers and Proceedings, 1950, p. 278 ff.

107. Op. cit. p. 288.

108. Kerr op. cit. 1954.

109. Op. cit. p. 72.

110. Fogarty, M. P. Wages and Salary Policy for Recruitment. Brit. J. Industr. Relat. 3, 1965, p. 311 ff.

advanced by the Webbs[111] when describing the states of the cotton, and boot and shoe industries. The philosophy of wage flexibility had been applied rigorously in the cotton industry, where the handloom weavers received only a pittance. In spite of this they had remained in the industry delaying the introduction of power looms since entrepreneurs were under no economic pressure to change. By contrast, in the boot and shoe industry trade unions were able to exert a powerful influence in maintaining the wage rates of hand workers on a parity with those using machines. Since the productivity of the machine operator was far higher there was a clear incentive for the entrepreneur to mechanise. This relatively smooth transition reduced hardship for the workers and also meant that there were more places for them in a prosperous industry. In effect an equitable wage rate smooths out fluctuations in the wage rate within occupational categories, although differentials for skill, age, seniority and peculiar conditions of work may be observed. Goodman[112] has reiterated the considerable difficulties posed for neo-classical theory by the imperfections of the market, e.g. lack of job information, the effect of institutional forces and that workers are the most heterogeneous of all "commodities".

Whilst the main bulk of empirical work was being carried on in the United States in the early 1950's, important work was also going on here. Jefferys[113] found that 75 per cent of inter-district moves were motivated by non-work reasons. Only 15 per cent gave work-connected reasons as prime motivation. Bluestone[114] worked along the

111. Webb, S. and B. History of Trade Unionism, 2nd ed. 1950.

112. Goodman, J. F. B. The Definition and Analysis of the Local Labour Market, Brit. J. Industr. Relat. 8, 1970, p. 179 ff.

113. Jefferys, M. Mobility in the Labour Market, 1954.

114. Op. cit.

lines of what constitutes a job choice. That is, part of the neo-classical theory implies that the worker makes a rational choice of jobs, having compared the net advantage or wage of each one. Bluestone suggests that this is not so. Workers do not tend to enter the market in this way but instead take the first or second job which comes along. Choice is frequently made whilst unemployed and so no comparison can be made with the job held. It should be noted that this recognition of a more haphazard approach on the part of the worker does not imply that he is acting irrationally in his choices.[115]

Further, the concept of wage levels which are widely known and which guide workers into the right place has received criticism. Douty[116] points to the wide disparity of wage rates which exist even at plant level. Robinson[117] states that, "Differences in wages for the same occupation are therefore to be expected; if they do not occur it is because some institutional authority has imposed uniformity either by law or by collective bargaining deliberately designed to equate wages in various firms in the same area." In an earlier study[118] he recorded a disparity between lowest and highest 'starting rates' as follows: 76.7 per cent for skilled mechanical maintenance workers, 77.4 per cent for skilled electrical maintenance workers and 67.5 per cent for semi-skilled and process workers. These figures are expressed as a percentage of the lowest 'starting rate reported'. This weighs very heavily against any concept of equilibrating wage rates. Depression of rates is highest amongst

115. See Rottenberg op. cit. p. 197.

116. Douty, H. M. Sources of Occupational Wage and Salary Dispersion in Labor Markets, Industr. Lab. Relat. R. 15, 1961/2, p. 67 ff.

117. Robinson, D. External and internal labour markets, in Local Labour Markets and Wage Structures, ed. by D. Robinson, 1970, p. 48.

118. Robinson, D. Wage Drift, Fringe Benefits and Manpower Distribution, O.E.C.D., 1968.

manual workers and decreases with increasing skill. The dispersion of rates of pay amongst salaried staff with similar job-titles is small. This is probably a reflection of increasing job knowledge and the use of promotion ladders and salary scales. Raimon[119] carried out a detailed analysis of inter-state migration data for the years 1950-57. He found the highest correlation between migration and changes in pay as the level of employment increases.

Routh[120] carried out a detailed analysis of published statistics for the British Isles for the period 1906-60. In his examination of numbers employed and relative pay structures, he found that the unskilled had made relatively greater pay gains than the skilled workers. Yet the unskilled worker showed a far higher rate of unemployment. In 1950 this was 5.1 per cent for unskilled, to a figure of 2.2 per cent overall, figures which are in direct conflict with the traditional concept of supply and demand determining wage rates.

Hunter[121] essentially covers much of the ground which has been covered before, but answers a point raised by the proponents of neo-classical theory - their claim that the failure to discover any statistically significant relationship between wages and mobility merely points to the potency of wages as an allocative force. A small change is all that is needed it is argued. Hunter points to the fallacy of this argument, and goes on to analyse the importance of removing barriers to movement and to the ways of improving recruiting and training techniques. Changes in wage differentials will only be important if a particular job is faced with a bad 'image' and yet must attract workers rapidly. Otherwise wage flexibility is

119. Raimon, R. L. Interstate Migration and Wage Theory, R. Econ. Statist. 44, 1962, p. 428.

120. Routh, G. Occupation and Pay in Britain 1906-60, 1965.

121. Hunter, L. C. Income Structure and Mobility, Brit. J. Industr. Relat. 5, 1967, p. 387 ff.

not important.

Severn[122] provides further support for the job opportunity theory by the analysis of quit rates. That is, the quit rate was expressed as a function of the wage differential and the opportunity for other employment expressed as the rate of unemployment. This gave the following function: $Q_{it} = a + bU_t + c\frac{W_{it}}{W_t} + V_{it}$ where 'i' and 't' refer to industry and time period; Q_{it} = quit rate; U_t = unemployment rate; $\frac{W_{it}}{W_t}$ = wage rate of the industry; 'i' as a ratio of average wage in 't'; and V_{it} = unexplained residual. The data was for manufacturing industries. Whilst the quit rate was shown to be related to changes in opportunity, no information was available as to whether workers leave for a particular job or to search for one.

Myers' criticism that empirical research supporting the job opportunity theory has largely been carried out in periods of economic slump will be seen to have been answered by the empirical studies mentioned above. The work carried out for the Economic Policy Committee of the Organisation for Economic Co-operation and Development by a working party led by Professor Peiter de Wolff[123] acts almost as a coping stone to any empirical and theoretical consideration of the labour market.

This Committee carried out its own detailed statistical analysis of employment trends and comparative pay structures of Western industrial economics since 1940 and surveyed previous literature. Their general conclusion might be summed up in Wolff's

122. Severn, H. K. Upward Labor Mobility: Opportunity or Incentive? Quart. J. Econ. 82, 1968, p. 143 ff.

123. O.E.C.D. op. cit. 1965.

words, "In the labour markets and periods studied, large short term changes in relative earnings do not seem to have been necessary to bring about substantial changes in the pattern of employment."[124] Like Beveridge, they found that "there is some tendency for a stronger relation between employment and earnings changes to be observed during periods of cyclically high economic activity than in periods of above average unemployment, although the relationship is not particularly close.[125] The Committee concludes that the evidence "strongly suggests that (1) the observed changes in the allocation of labour are often brought about by mechanisms other than changes in the wage structure, and (2) the observed changes in wage structure are often brought about by mechanisms other than those that allocate labour."[126] This is a similar conclusion to Robinson, when he wrote, "If there are economic forces working in the local labour market in the old orthodox sense, they are doing so in a most peculiar way. Or, ... they are so weak and open to distortion that other factors dominate then."[127].

Gross movements of workers are so large that a firm can expand its labour force within the existing relative wage structure by simply reducing its turnover of workers, i.e. fewer workers are dismissed relative to accessions of new workers. Some firms find it profitable to employ these extra workers at the existing wage differentials; exerting pressure on other, less profitable firms, to economise in

124. Op. cit. p. 9.
125. Op. cit. p. 10.
126. Op. cit. p. 17.
127. Robinson, D. Myths of the Local Labour Market, Personnel, December 1967, p. 38.

their use of labour. This will mean that workers are available to take up the job opportunities in the expanding sectors.[128] This wage system, where the rate of pay is linked to the economic opportunities in the particular sector or occupation, is a form of net advantage equalisation process,[129] at variance with those of the neo-classical school. Indeed, as Turner remarked, "One seems entitled to regard ... the treatment of relative wages as the product of demand and supply in labour markets as at least substantially qualified."[130]

2.10 Evaluation of Theories

These then, are the two basic positions as they are held today; to summarise them. The neo-classical theory assumes that workers move to maximise their net advantage, usually measured in terms of money wages. Wages are the major allocative force at work in the market. Conversely the movement of workers affects the wage rate; wages are assumed to be flexible downwards. The worker makes his choice between various employments after evaluating the money wage relating to each one. His decision as to hours worked is based upon the disutility of extra work for the wage offered.

The job opportunity theorists emphasise the many factors, other than wages, which affect the worker's choice of jobs. The large gross movements of workers indicate that wage differentials are not necessarily the sole, nor even main allocative force for labour within the economy. The recruitment and retention policies of firms or sectors are a more potent force in the re-allocation of labour. This is not to say that a relationship may not exist between relatively high

128. Op. cit. p. 17.
129. Turner op. cit.
130. Op. cit. p. 640.

wages and the movement of workers. This relationship has been statistically proved in a number of cases; but it is never very strong, and the very existence of this differential, rather than any change in the relative wage is sufficient to explain the movement of labour. Further, the worker is often prevented from making active comparisons of alternative job wage rates by lack of knowledge, institutional restrictions and personal circumstances.

The neo-classical position, basically an extension of theory developed from the commodity market into the labour market, has the obvious attractions of theoretical exactitude. Whilst the necessity of theoretical abstraction is accepted, as is the importance of the wage earned, the ability of this theory to stand up to empirical evidence is questioned. Any theory of the labour market must take account of the many factors other than money wages, some of them not even work related, which affect mobility. Many of these factors cannot be quantified, but this in no way reduces their importance.

A number of points can be raised in support of the job opportunity theory. Not only do gross flows of workers far exceed net movement,[131] but many of the largest of these movements are into industries with a relatively low wage.[132] Empirical studies of

131. Approximate Estimates of the Flows of the Employees Between Industries, Gazette, 18 April, 1970, p. 303.

132. e.g. In the analysis of inter-industry flows (Gazette, op. cit.) Miscellaneous Services, showed a net increase of 700 employees in the year with the fourth largest inflow of workers (116,200). It also had the second lowest average weekly wage; this was 365/2 (£18.26) per week for males over 21 in October 1967. (Gazette February 1968 p. 106). Similarly, Public Administration increased its number of employees by 27,000 (an inflow of 81,900 workers) whilst offering the lowest average weekly wage in the October of 1967; i.e. 335/3 (£13.76) per week. These figures indicate that the movement of workers has as much to do with the ease of entering certain industries and the recruitment/ retention policies of these industries as the wage offered.

sectors of the labour market substantiate the suggestion that workers' objectives are often non-financial.[133] Even when the motivation might be described as financial, it is often a desire for economic security rather than high wages.[134] The high wages offered by a firm may well reflect the profitability of the enterprise rather than any desire to expand its work force. If it wishes to increase its work force it could do this equally, if not more effectively, by altering its policy of recruitment and reducing the number of voluntary leavers. It is not denied that some level of wage increase may attract the necessary staff, however, this level of increase is unknown.[135] Further, this method of indulging in a competitive auction is likely to be less effective than other methods of operating on the rate of retention.[136] Certainly considerable union pressure will be generated to maintain the established wage differentials irrespective of any market forces at work.

2.11 Conclusion

The development of the two main strands of labour market theory has been presented. The neo-classical position is commended by its simplicity, but it does not present a complete picture of the actual workings of the labour market. The available evidence indicates that, whilst wages are important to workers, they are not the sole, nor necessarily even most important determinant of mobility. The large gross flows of workers into low paid jobs are difficult to

133. Jefferys op. cit.; O.E.C.D. op. cit.; Reynolds op. cit.
134. O.E.C.D. op. cit. p. 17.
135. Robinson op. cit. 1968 p. 124.
136. Robinson op. cit. 1968 p. 166.

explain within the confines of this theory. Therefore the job opportunity theorists's recognition of the many non-monetary factors determining mobility is important. Yet the writer feels that a purely job-opportunity approach would be weakened by its neglect of wages. As Chapter 4 will show most studies of the agricultural labour market have relied upon neo-classical theory. Therefore few studies of the agricultural labour market have examined both the effect of wages upon mobility, and such factors as job security, and the various socio-economic aspects of the worker's role. Lack of readily available data has been a major problem in carrying out such studies in the United Kingdom. This study of the Fife agricultural labour market will attempt to combine both of those theoretical approaches, using a detailed questionnaire and personal interviews. It is realised that within the limited scope of this type of study it would be difficult to produce a definitive answer. It is hoped, however, that this Fife study will show that in the existing state of theoretical development this method is the only way of combining the finesse of the neo-classical model with the realism of job opportunity theory.

CHAPTER 3

THE CONCEPT, METHODOLOGY AND DETERMINANTS OF MOBILITY

3.01 Introduction

This chapter will analyse basic concepts of mobility developed since the 1930's, describing the types of mobility and assessing the factors which affect mobility.

3.02 The Concept of Mobility

There has been some confusion in the literature over the definition of mobility and this has led to conflict in the analysis of empirical results. It is proposed, therefore, to give a definition at the outset of this chapter; the one used is that developed from Parnes[1] by Hunter and Reid.[2] "Labour mobility is the movement of labour between jobs, including all changes in the employment or job status of the worker that alter his function or location in the productive or distributive framework. Mobility includes willingness and ability to move but will not in its 'revealed' form show up the potential flexibility of labour."

The wide definition adopted by Hunter and Reid contrasts with the narrow definition of mobility as change in occupation given by Ann Bezanson;[3] changes of job within the occupation she referred to as 'turnover'. It is not proposed to adopt this unduly restrictive concept of both mobility and turnover. If, for example, a worker moves from a joiner's shop to a motorway construction site to erect shuttering whilst still in the same occupation he has shown considerable

1. Parnes, H. S. Research on Labor Mobility, 1954.
2. Hunter, L. C. and Reid, G. L. Urban Worker Mobility, O.E.C.D., 1968.
3. Bezanson, A. The Advantages of Labour Turnover: an illustrative case, Quart. J. Econ. 42, 1928, p. 450 ff.

mobility. He may well face the same problems as someone actually making a change of occupation.

The following definitions will be used in this study when dealing with turnover:- accessions to the firm: all new or rehired workers in that particular firm; a quit: a voluntary separation from the firm by the worker; a discharge: termination by the firm of the worker's employment on some ground of disagreement between them; a layoff: a temporary termination of employment by the employer, but not a mark of dissatisfaction with the employee; redundancy: a permanent termination of employment by the employer, but again there is no question of dissatisfaction with the employee. Dismissal in this case is usually by some form of established procedure and compensation will be paid; turnover: the number of accessions and quits per 100 workers in a given period of time.[4]

Hunter and Reid's definition of mobility also includes the worker who moves within his firm or who changes his job routine within his firm. At no time is he unemployed and yet he has made a very definite change in his function or location in the productive and distributive framework. This will mean geographical mobility for workers moving between two plants; for others occupational mobility or considerable changes in job routine whilst remaining in the same plant. This is an area of empirical research documented by a few relatively recent surveys.[5] For, whilst this intra-firm mobility may well be very important, it is difficult to measure

4. Seigel, J. G. Measurement of Labor Turnover, Monthly Lab. R. 76, 1953, p. 519 ff.

5. Mackay, D. I. et. al. Labour Markets Under Different Employment Conditions, 1971, p. 89-90; Robinson, D. External and Internal Labour Markets, in Local Labour Markets and Wage Structures, ed. by D. Robinson 1970.

accurately because detailed observations at the plant level over a considerable length of time would be necessary. It is usual therefore to measure 'mobility' as the movement between employers.

Hunter suggests research into the worker's ability to move, his willingness to move and his actual movement. These are the three basic categories developed by Parnes.[6]

Potential Mobility: This is generally considered to be the aptitude necessary to undertake a particular type of job. To measure mobility in this way jobs would have to be graded according to the skills required, and then tests could be devised to test the worker's ability to take up these jobs. However, as well as the necessary aptitude for a job, a minimum period of retraining would be required before a worker could take up a new occupation. Since data on this type of mobility is scarce it would be difficult to measure potential mobility, although it would reduce recruiting costs and ensure that workers found jobs more suited to their abilities.

Research into the ability of farm workers to take up industrial employment suggested that these workers were no less able to take up industrial employment than urban workers.[7] An investigation might well be made into the impact that jobs have upon workers' ability to obtain new jobs or change occupations.[8] Some occupations develop highly marketable skills, e.g. financial expertise, the ability to make business friends and administrative

6. Op. cit. p. 13.

7. Harbury, C. D. The Industrial Efficiency of Rural Labour, University of Wales, 1958;
Johnson, D. G. Comparability of Labor Capacities of Farm and Non-farm Labor, Amer. econ. R. 43, 1953, p. 246 ff.

8. Smith, J. H. Analysis of Labour Mobility, in Manpower Policy and Employment Trends, ed. B.C. Roberts and J. H. Smith, 1966.

techniques. Other occupations, e.g. mining, fail to develop skills in the worker which are of use in other occupations. The period of retraining necessary between jobs will be determined by the restrictive nature of any one occupation.

Propensity to Move: This is the measure of the worker's willingness to make a particular move given certain alternatives. It assumes his ability to fulfil the requirements of any of the job choices before him, given the requisite retraining period. Although this concept of mobility offers a guide to the degree of labour flexibility in the economy it overstates the worker's ability to move, since it would be unusual if all those able to move at one time were prepared to do so. On the other hand this concept gives a test of the traditional theory of labour mobility - that labour moves to maximise its net advantage: an increase in the propensity to move would be expected for an increase in the advantages of taking a particular job.

Reynolds[9] divides propensity to move into cases where:- a worker is moving from a job to unemployment or from unemployment to a job, or where he is moving from one job to another. 'Propensity to move' can, therefore, measure the individual's willingness to move in the face of uncertainty, security, present job satisfaction, social background or family attitudes. It must be emphasised that these varied and varying socio-economic pressures must be considered when examining propensity to move.

It must be pointed out that 'propensity to move', although important conceptually, is difficult to measure. A sample of individuals must be faced by a set of realistic, yet hypothetical

9. Reynolds, L. G. The Structure of Labor Markets, 1951.

questions, relating to a number of job choices. This is difficult because the design of the questionnaire will be complex and the individual's reaction in real life, when faced by similar choices, may be very different. Parnes' suggestion of setting workers hypothetical questions and then confronting them with the actual choice would require a research project of such cost and scale that co-operation between government and industry would be necessary.[10]

Actual Mobility: This is the physical movement of workers from one job or occupation to another. This measure of mobility cannot be taken as indicating the full potentiality for movement within the labour force, because imperfections in the labour market inhibit the movement of workers who say that they are willing to move. These imperfections will be considered below. It must be noted that this measure is the one most commonly adopted by research workers and deductions are then made as to potential mobility. Such research assumes that the study of past labour patterns will provide information upon which predictions of future movements can be based. The short-comings of this method lie in the assumption of the permanency of the underlying socio-economic conditions and in isolating all the relevant factors in the first instance.

3.03 Voluntary and Involuntary Movement

Distinguishing voluntary mobility from redundancy and dismissal is important on two counts. Firstly if the study is one of motivation then the inclusion of involuntary mobility will bias the results. A comparison of Reynolds' research[11] and that of

10. Op. cit. p. 17.
11. Op. cit.

Heneman[12] illustrates this point. Reynolds found that 26 per cent of the mobile workers in Newhaven received increased wages, compared with 50 per cent of the workers in Heneman's survey in Minneapolis in 1947. However this discrepancy can largely be explained in terms of the distinction between voluntary movement and involuntary movement. In Reynolds' results these were not distinguished, whilst the results for Minneapolis were for voluntary movement only. Parnes[13] gives a recalculation of the Newhaven data using Heneman's definition, and obtains a figure of 40 per cent for the number of voluntary workers obtaining an improved wage.

Details as to whether farm workers are generally voluntarily mobile are not readily available. What information there is suggests that they are in fact voluntary movers. In a survey of farms in East Lothian it was found that 60 per cent of the 144[14] workers who changed jobs on the sample farms did so voluntarily. Changes in wages, as a result of mobility, were not recorded in this survey.

3.04 Primary and Secondary Workers

A major part of the workers entering the labour force as youths will, except in exceptional circumstances, such as severe economic depression, remain in fairly continuous employment throughout their working lives. This group is referred to by Wilcock[15] as

12. Heneman, H. G. et al. Patterns of Manpower Mobility, University of Minnesota Industrial Relations Bulletin, 1948.

13. Op. cit. p. 117.

14. Mackel, C. J. Labour in Scottish Agriculture, B.Sc. Dissertation, Edinburgh University, 1970.

15. Wilcock, R. C. The Secondary Labour Force and the Measurement of Unemployment, in The Measurement and Behaviour of Unemployment, 1957.

'primary workers'. Changes in the rates of entry and retiral will largely reflect the current economic conditions and government policy. For example, the raising of the school leaving age will cause a temporary dislocation in the supply of new entrants. A society's attitude to retirement age and the provisions of pensions will alter the labour supply in the older age groups, e.g. the number of workers aged over 65 years in Scottish agriculture fell from 5.8 per cent in 1951 to 3.0 per cent in 1969.[16]

There is also the group of workers designated by Wilcock as 'secondary workers', because they are only intermittently employed. Their labour force participation has in fact been investigated more than their mobility during periods of employment. A proportion of the casual workers in agriculture fall within this category. Migrant agricultural workers are much more important within the United States,[17] but squads of Irish labourers have been used extensively on Scottish farms.

Apart from these changes within the labour force there are also many changes due to the movement of workers into and out of employment. Consideration of this source of change brings together both the concepts of 'turnover' and 'mobility' as defined above; that is, changes which may have occurred in the status of the worker as a result of his move, and changes in a firm's rate of accessions and quits over a period of time, respectively. For some workers, e.g. the elderly worker who may never be employed again, the change in status may be both considerable and harmful. For a small group of workers unemployment is a regular occurrence, either because of the nature of their work, e.g. seasonal, or because of their personal characteristics, e.g. ill-health.

16. Figures taken from Agricultural Statistics (Scotland) for the respective years.

17. Taeuber, C. Migration in the United States, J. Fm. Econ. 41, 1959, p. 1141 ff.

3.05 A Classification of Mobility

Industrial: A job change between employers will have several dimensions. The amount of movement will depend upon the fineness of the industrial classification chosen. Official industrial classifications available in both the United Kingdom and the United States differ in detail but are similar in broad outline. The British Standard Industrial Classification (S.I.C.) was first introduced in 1948 to 'promote uniformity and comparability in the official statistics of the United Kingdom'.[18] The main structure of the classification is a division of industries in main 'order groups', of which there are currently 27. These 'order groups' are in turn divided into 'minimum list headings' (M.L.H.) which specify particularly industries, e.g. coal mining and petroleum both occur under 'order group' II but are distinguished by M.L.H. numbers of 101 and 104 respectively. Some of the more diverse categories in the M.L.H. are in turn sub-divided to specify more exactly the industries included, e.g. M.L.H. 218 'Fruit and vegetable products' is divided into: 1. Jam, marmalade, jellies, etc; 2. Quick freezing fruit and vegetables; 3. Other fruit and vegetables. In each case a description of the activities carried out is provided. The original classification has been revised twice since 1948, once in 1958 and again in 1968. The present edition takes into account "The International Standard Industrial Classification of all Economic Activities" issued by the United Nations, and the same general principles are followed.

The basic unit upon which the classification is based is the 'establishment', defined as the 'smallest unit which can provide

18. Central Statistical Office Standard Industrial Classification, Revised Edn. H.M.S.O. 1968 p. iii, para. 1.

the information normally required for an economic census'.[19] As the basis for the classification is industrial, all persons employed in that 'establishment', irrespective of occupation, are included in the figures of employment for that industry. Similarly, no account is taken of who actually owns the 'establishment', e.g. a bus service belonging to a local authority remains under 'Transport' and not 'Local Government Service'. Where activities are carried on at an establishment which are characteristic of different industries then usually the main one is taken as the basis for classification. If sufficient information is available for each of these activities then each one will be classified as a separate 'establishment', even though they are carried out at the same address. Special problems arise where there are head offices existing at some distance from the businesses they serve, since these offices have no measurable output of their own. Problems relating to the use of the Standard Industrial Classification encountered in the survey are dealt with in chapter 5. If analysis were of time series data then note would have to be taken of revisions in the classificatory system.

Whether a broad or detailed industrial classification is used will be determined largely by the aims and resources of the research programme. Too broad a classification will overlook important inter-industry flows; too fine a division will raise problems of defining an industry and of tracing worker movements.

Occupational Mobility: Much of what was said of industrial mobility applies to the classification of occupational mobility. The most recent British classification of occupations, entitled "Classification of Occupations and Directory of Occupational Titles" (CODOT), was published by the Stationery Office in 1972.[20]

19. Op. cit. p. iii, para. 6.
20. Department of Employment Classification of Occupations and Directory of Occupational Titles, H.M.S.O. 1972, 3 volumes.

This provides a classification system to cover all occupations found in Great Britain, and lists 3,500 separately identified occupations. A 'job' is defined as "all tasks carried out by a particular worker to complete his duties"; and an 'occupation' is defined as "a collection of jobs sufficiently similar in their main tasks to be grouped under a common title for classification purposes."[21] That is, all workers in a particular occupation would normally be able to undertake all the jobs covered by that occupation with little or no retraining.

Occupations are grouped primarily according to work usually performed, i.e. materials processed, machines used, products and services provided, etc. Occupations, therefore, are not primarily grouped by the industry in which the worker is employed. Similarly qualifications, skills, etc. are not a primary means of classification, unless they have some direct bearing on the work performed, e.g. the difference between worker and foreman, or some legal standing, e.g. medical qualifications. As in the industrial classification there are three levels of definition:

Unit Group: This is the basic unit of classification. All occupations in this group have tasks with similar characteristics. There are 378 groups in CODOT.

Minor Groups: A collection of 'unit groups' related in terms of work performed; of which there are 73 in CODOT.

Major Group: An amalgamation of 'minor groups' to aid an overall comprehension of the system. There are 18 such groups in CODOT.

Each occupation listed in CODOT is identified by a number and title, this is followed by a description of the tasks performed

21. Op. cit. Vol. 1, p. 7.

and how these are carried out. There are further details of possible additional tasks and other factors, e.g. qualifications required for the job and alternative titles. This new British system is compatible with that adopted in the "International Standard Classification of Occupations."[22]

The size of the occupational groups chosen will depend largely on the aims and resources of the particular research programme. The dangers of making a wrong decision in this matter are similar to those outlined for industrial mobility: too broad a classification will miss important occupational flows, too fine distinctions will lead to considerable definitional problems. Professor Pieter de Wolff[23] was criticised for the use of too broad a classificatory system - it was said that this has biased some of his results.

Geographical: The movement of workers outside a particular plant, whether industrial or occupational, may also constitute geographical mobility, i.e. movement between small local areas, regions or countries. Whilst national boundaries are easily defined, figures for international migration are difficult to obtain and, except where countries keep records of immigration and work permits issued, international passenger surveys are the basis for the statistics. Economic federations like the European Economic Community, where there is a common labour pool, make such movement particularly difficult to measure. At the regional level the use of administrative boundaries is far from ideal. They are, however, easy to identify

22. International Labour Office International Standard Classification of Occupations, 1968, Revised Edn. 1969.

23. Wolff Prof. P. de Wages and Labour Mobility, O.E.C.D., 1965.

and form the basis for official statistics. However, unless a change of employer concords with a worker's change of residence, official statistics fail to record geographical mobility. A Scottish example could be miners from East Lothian working in Midlothian but retaining their original residence, and therefore in the official statistics being recorded as immobile. Geographical mobility amongst manual workers is usually limited to short distance moves.[24]

Even defining areas in terms of localities and not regions will not remove all the definitial difficulties because of the complex inter-connections of places of work and residence in the community. The extent of a local market will be determined largely by the distance over which people are prepared to move, itself a function of the local transport system, e.g. London is able to draw workers from a wide area because of its extensive road and rail network. If local transport is limited then the local labour market will be small; correspondingly if the layout of the main transport arteries is unusual, and there are physical barriers to movement, then the local labour market will assume a special shape. Provision of special buses, the establishment of new large plants and industrial estates will also alter the shape of the labour market. Goodman's[25] suggestion of two aspects of a local labour market, that the bulk of the active work-force is employed there and that employers in the area conceive of this as their main labour pool, is a useful starting point for research. A single prevailing wage-rate for the same occupation within an area would also be an important factor.

24. Mackay, D. I. et al. op. cit. p. 29.

25. Goodman, J. F. B. The Definition and Analysis of the Local Labour Market, Brit. J. Industr. Relat. 8, 1970, p. 179 ff.

Robinson defines the local market as "that geographical area containing those members of the labour force, or potential members of the labour force, that a firm can induce to enter its employ under certain conditions, and those other employers with whom the firm is in competition for labour."[26]

3.06 The Cost of Movement

These costs are of two types: monetary and psychic. If the worker changes his job whilst retaining the same residence he will not only incur the monetary costs of travel to work each day but also the psychic costs of travelling. Although economists have evaluated the value of time spent in travelling and after a fashion, leisure foregone, frustration and tiredness are more difficult to estimate. If he is changing both his job and his place of residence then his psychic costs will vary according to whether he was voluntarily mobile or not. That is he will be leaving a known community and friends/relatives, and one might expect that the costs of doing this would fall more heavily upon the man who is not moving because he chose to.[27] Beside the non-monetary costs of leaving a known community and friends there will be the monetary costs of lost earnings until a job is found and the actual costs of looking for a job. Costs also devolve upon the community, whether in the costs of providing unemployment benefits or in the provision of employment agencies. Bonuses or wage premia may also be paid to workers in declining

26. Robinson, D. Wage Drift, Fringe Benefits and Manpower Distribution, O.E.C.D., 1968, p. 66; see also Robinson, D. op. cit., 1970, p. 28 ff.

27. Sjaastad, L. D. The Costs and Returns of Human Migration, J. polit. Econ. 70, supplement, 1962, p. 320 ff.

industries or areas to encourage movement.[28]

3.07 Other Factors Affecting Mobility

Whatever personal qualities and motivations the worker has they will be conditioned to some extent by his environment. Many of the differences between groups or workers can be explained in these terms.[29] A worker's age, number of dependents, education and union membership, as well as his job, jointly produce a complex reaction which will condition his response to the labour market.

As Behrend[30] demonstrates, different groups of workers show very definite mobility characteristics, e.g. school teachers are less mobile between jobs than factory workers because of the contractual nature of teaching, with its emphasis on responsibility to the school and the vocational nature of the work. The short period of notice, usually one week, discourages the same degree of loyalty amongst factory workers. In general only careful analysis of an individual's various roles will separate these social factors from personal attributes.

Age: Numerous studies have shown that age has a profound effect on mobility. From empirical research it is well established that mobility is high amongst the young, and reaches a peak in the age-group 25-30 years. It then declines but has a short-lived resurgence in the period just before retirement. This applies to occupational, industrial and geographical mobility. The explanation

28. Kahn, M. R. Labour Mobility: some critical reflections, District Bank R. 57, 1966.
Fogerty, M. P. Wages and Salary Policy for Recruitment, Brit. J. Industr. Relat. 3, 1965, p. 311 ff.

29. Behrend, H. Normative Factors in the Supply of Labour, Manchester Sch. econ. soc. Stud. 23, 1955, p. 62 ff.

30. Op. cit.

of this pattern is usually accepted as the young worker without family responsibilities changing jobs, comparing the various opportunities in a haphazard fashion and enjoying the varied job conditions.[31] As the worker gets older he tends to settle down, he also has family responsibilities and will be gaining seniority in his place of work. An increase in mobility shortly before retiral can often be traced to a worker's ill-health or decline in physical strength which renders him incapable of doing his job. Farm workers in this age-group may move into industrial jobs in order to obtain a council flat for retirement.[32] A Central Office of Information Survey[33] amongst 25 million employees found that, of those starting work in the 10 years of the survey, only 44 per cent remained with the same employer at the end of the period, which implies a high mobility amongst those aged under 25 years. Also of those aged over 55 years 32 per cent had changed their jobs during the period, 14 per cent of them more than once.

Age viewed from the standpoint of length of service with a firm can be regarded as investment in particular skills. Some craft skills will be transferable to other jobs, but others will not be, thereby inhibiting movement to other work. Length of service with its concomitant pension rights, which may not be transferable, seniority and status in the firm all serve to make the worker more reluctant to leave an established position for a new one. An interesting exception may be mentioned here: Jones[34] found that the establishment of a large new car plant at Swansea created

31. Carter, M. Into Work, 1961.
32. Mackel op. cit.
33. Ministry of Labour. Mobility Between Industries and Jobs, Ministry of Labour Gazette, July 1966, p. 379 ff.
34. Jones, R. M. A Case Study in Labour Mobility, Manchester Sch. econ. soc. stud. 37, 1969, p. 169 ff.

sufficient employment opportunity to overcome the inhibiting effects of long-term service. On the other hand, in some occupations promotion and status are gained by mobility.

Sex: Higher mobility rates for men than for women may be biased by the shorter working lives of the latter, lack of comparability of industrial or occupational classifications, and changes in labour force participation; especially since much job changing by women is attributable to the bearing and bringing up of children.[35]

Marital Status: The married man is less likely to undertake voluntary separation from his job unless he is fairly certain of getting a new one. His mobility will be lower the greater the number of his children and the closer the kinship ties in his community.[36] Care must of course be taken to weight these rates according to his age, income and job status.

Housing: The considerable amount of literature on this topic is often inconclusive because housing and many other determinants of mobility are inter-related.[37]

Research into rural-urban migration in the United States has suggested that adequate housing cannot be considered a pull factor, nor can inadequate housing satisfactorily explain the reverse flow of migrants.[38] In the United Kingdom for a long time it was assumed that a worker would move more freely if he simply rented accommodation.[39] He would not have the costs of maintaining property

35. e.g. Behrend op. cit. found that 24 per cent of women teachers who terminated their employment in a school did so because they were pregnant.

36. Young, M. and Wilmott, P. Family and Kinship in East London, 1962; Hoggart, R. The Uses of Literacy, 1957.

37. Cullingworth, J. B. Housing and Labour Mobility, O.E.C.D., 1969.

38. Pearson, J. The Significance of Urban Housing in Rural-Urban Migration, Land Econ. 39, 1963, p. 231 ff.

39. National Housing Committee. A National Housing Policy, Report of the National Housing Committee, 1934; Elsas, M. J. Housing and the Family, 1947.

and the costs of moving would be limited to the transportation of himself, his family and furniture, plus the search costs of finding new accommodation. Elsas wrote, "Nothing impairs the mobility of labour so much as house ownership by working class families.[40] It is questionable, however, whether rented accommodation is freely available in the areas where alternative employment attracts a worker.

Rented accommodation is of two types, either provided by a private individual or a local authority. In fact the supply of the former, much of which was built before 1920, is being reduced by demolition.[41] It is estimated that of the 10,000 houses demolished annually in the 1960's a large proportion were previously privately rented;[42] new houses are rarely being acquired by private landlords. Most of the houses built for renting in the years 1945-1966 were erected for local authorities, e.g. in Scotland 300,000 were built in this period.[43] The resultant contribution to mobility has been slight for much of the movement which has occurred has been local. For example, Donnison[44] found that of those moving into council houses only five per cent travelled more than an hour's journey from their previous home. This is the result of Local Authority rules on waiting lists for council vacancies. A new entrant to an area will be given a low position on the list; and an existing council tenant will sacrifice his priority by moving outside his area, and so will be reluctant to do so. Private arrangements may be made

40. Elsas op. cit. p. 119.

41. Cramond, R. D. and Marshall, J. L. Housing and Mobility, Scott. J. polit. Econ. 11, 1964, p. 57 ff.

42. M. Wicks in Rented Housing and Social Ownership, 1973, notes that in the United Kingdom in the years 1966-70 there was an annual average reduction of 135,000 in the number of dwellings available for private renting. Most of these went in demolition of slum property, but also sitting tenants were buying their property.

43. Cramond and Marshall op. cit.

44. Donnison, D. V. Housing and the Rent Act, 1961.

between council tenants and so facilitate longer moves.

Owner occupiers have considerable freedom of movement despite the costs of conveyancing. There is no ordered list of prior applicants for housing and competition for the available housing is open. However owner occupiers are for the most part from skilled or professional occupations. This combination of factors has meant that manual workers will often change jobs whilst remaining at the same residence. For example Donnison[45] found that amongst the skilled, semi-skilled and other manual workers only 11 per cent moved their home because of a change of job, but 42 per cent of the professional, administrative and managerial groups changed houses with their job. They also tended to move further than those in the other socio-economic groups.

Farm workers wishing to move into urban areas are likely to face considerable difficulties. The farm worker's capital stock for buying a house may well be small and, if privately rented accommodation is not available, he will have to join a local authority housing list as a low priority case, both on the grounds of his probable non-residence in the area and of his existing tenancy of a satisfactory house. His position will be made even more difficult if his tenancy is tied to the job, for if he wants to move to urban employment he will first have to find alternative accommodation.

Education and Human Capital: The level of education of the worker influences his potential mobility. As his level of education increases so apparently does his mobility. Gisser[46] has shown in an area of the southern United States that a ten per cent increase in schooling in rural areas might be expected to raise the level of

45. Op. cit.

46. Gisser, M. Schooling and the Farm Problem, Econometrica 33, 1965, p. 582 ff.

state out-migration by six to seven per cent and the worker's wage rate by five per cent.

The question of on-the-job training and the investment in human capital is dealt with fully by Becker.[47] Empirical studies show that whilst skilled and professional workers are geographically more mobile than the unskilled,[48] investment in learning skills, which would be lost in changing to another occupation, restricts occupational mobility.[49] However, it should be noted, as was mentioned earlier,[50] that certain occupations develop skills which are marketable; others develop skills which are related particularly to that occupation. This will bring about different patterns of mobility in the two groups of workers.

Firms' attitudes to investment in human capital will also be responsible for much mobility. Becker states[51] that the income maximising firm will not bear the full cost of on-the-job training, but by paying trained workers the full market wage will retain their services. By contrast agriculture has paid its young workers a relatively high wage and its adult workers a relatively low wage. Consequently there has been an influx of school leavers who have left the industry upon reaching their late teens and early twenties.

47. Becker, G. S. Investment in Human Capital: A theoretical analysis, J. polit. Econ. 70 (5) part 2, supplement, 1962, p. 9 ff.

48. e.g. Mackay et al. op. cit. p. 30; Harris, A. and Clausen, R. Labour Mobility in Great Britain 1953-63, H.M.S.O., 1966.

49. Bancroft, G. and Garfinkle, S. Job Mobility in 1961, Monthly Lab. R. 1963, p. 905 ff; Fisher, M. R. Selection of Skill, Training and Occupational Mobility, Manchester Sch. econ. soc. Stud. 36, 1968, p. 111 ff.

50. Smith, J. H. op. cit.

51. Op. cit. p. 16.

Some of these will have of course entered agriculture as a short term measure, but undoubtedly agriculture would be better served if it could attract the young workers it requires, train them and then retain their services by paying them a competitive wage. Becker suggested that the division of the cost of training between the employer and the worker should be determined by how specific the training is. If the training is very general in nature and readily transferable to another job then the worker should contribute towards it, e.g. the low wages paid to apprentices. The more specific the training becomes the more the full cost should devolve upon the employer.

Unions: Analysis of the impact of unionisation upon mobility points to the fact that they are inversely related. This is seen to result from a number of practices: the use of the 'closed shop', work sharing arrangements with other unions and negotiated seniority rules[52] whereby lay-offs occur on the basis of length of service; they also may act to retain higher employment than firms want.[53] Unions also act to disseminate information. One of their major roles is the negotiating of wage-rates and differentials.[54] Much of the research based upon the difference between the mobility of union and non-union members is weakened by the fact that workers may change their union membership, non-members usually share many of the benefits gained by the union in their

52. Fisher, M. R. The Economic Analysis of Labour, 1971, chap. 5; Weinstein, P. A. The Featherbedding Problem, Amer. econ. R. 54, 1964, p. 145 ff.

53. Presumably for this reason some unions are even reluctant to negotiate redundancy agreements; see Smith, A. D. Redundancy Practices in Four Industries, 1966, p. 90; Fox, A. The Milton Plan, 1965.

54. Thirlwall, A. P. Demand Disequilibrium in the Labour Market and Wage Rate Inflation in the United Kingdom, Yorkshire B. econ. soc. Res. 21, 1969, p. 66 ff. Routh, G. Occupation and Pay in Britain 1906-60, 1965.

place of work[55] and there will be differences in the degree of participation in union activities.

Level of Employment: As might be expected the number of voluntary movers increases with the level of employment; at high levels the opportunity for movement is greater and the worker does not feel so insecure at leaving his present job. Cowling and Metcalf[56] have demonstrated the effect of the business cycle on the rate of out-migration from agriculture. The rate at which workers leave the industry is highest in periods of low unemployment in the industrial sector.

Differential levels of employment in sub-groups of the labour force will result in the re-allocation of labour away from occupations, industries or regions which are declining to those which hold expanding employment opportunities. This was demonstrated in the work of Makower and her colleagues.[57] They showed a clear correlation between employment opportunity, measured by the ratio of unemployment rates, and inter-county migration rates. Cowling's[58] work also showed the differential effect of economic opportunity, measured in terms of employment upon the regions. In fact the predictive power of his model was best for what he called 'high activity regions', that is areas like the South East of England with a diverse opportunity for employment, and less successful for areas like Scotland.

Policy Decisions: Policies adopted by the employer or Government can have an important influence on the mobility of workers.

55. e.g. McCormick, B. J. Wages 1969, p. 80,84; this contrasts with Fisher's view (op. cit. p. 165) that 'it remains true that successful exploitations of such power accords benefits solely to union members.'
56. Cowling, K. and Metcalf, D. Labour Transfer from Agriculture: A regional analysis, Manchester Sch. econ. soc. Stud. 36, 1968, p. 27 ff.
57. Makower, H. et al. Studies in the Mobility of Labour: Analysis for Great Britain, Oxf. Econ. Pap. 2, 1939, p. 70 ff. and 4, 1940, p. 39 ff.
58. Op. cit.

For example, it is commonly accepted that employers are often reluctant to take on staff over a certain age, thereby discouraging elderly workers from making voluntary separations. Also skilled and professional posts are often advertised for specific age groups with a promotional ladder geared to this. Discrimination on the grounds of race, colour or beliefs may also be practised. Finally, economic pressures may force employers to undertake rationalisation and this will lead to involuntary mobility.

Government has a crucial part to play in influencing mobility and manpower distribution.[59] As well as augmenting monetary and fiscal policies it can alter employer policy either by means of loans, grants, contracts or advice, e.g. the support given to the Clyde shipyards or the provision of grants for firms moving into development areas.

In agriculture its policies are effective in ways outlined in chapter one. The Government might be said to influence mobility by either encouraging the movement out of the industry of farmers on small unprofitable holdings or by seeking to reduce the number of employees engaged in agriculture. This was the aim of the National Plan.[60] The provision of day release classes and training board schemes will also influence mobility. The major sphere of Government influence remains the amount of support given to the industry, but little empirical research has been carried out into the effect this has upon the level of out-migration from the industry. Work done in the United States has shown insignificant correlation between the level of support and the rate of out-migration of employees.[61]

59. Robinson, D. op. cit. 1968 p. 136 ff.

60. Cmnd. 2764. National Plan 1965.

61. Mumey, G. A. The Parity Rates and Out-Migration, South. econ. J. 26, 1959.

Government can also influence mobility through the provision of employment agencies which act as an information service and distribute security benefits. It is generally accepted that amongst unskilled and semi-skilled workers mobility tends to be haphazard, based on little information on job opportunities. This information will be gathered mainly from informal contacts and newspaper advertisements.[62] A study carried out in 1949 showed that 20 per cent of the migrants already had contacts with people in the area to which they moved.[63] In general, personal job search will continue until the marginal return equals the marginal cost of search.[64]

3.08 Conclusion

The importance of deriving and then applying clear definitional and operational terms has been established. Unless this is done there will be a very real danger of misinterpreting movements which take place and of not assessing the relevant factors correctly. When considering any particular case of mobility the many forces which may have interacted to induce movement must be borne in mind.[65] Some of them may be easily identifiable e.g. age, others may be difficult to isolate from the affects of other factors e.g. housing, and others will impinge upon the worker from outside his immediate environment e.g. Government Policy. Many of these

62. Routh, G. Immobility of Labour, New Society, 13 December 1962.

63. Hutchison, B. Depopulation and Rural Life in the Solway Counties, Social Survey, 1949.

64. Stigler, G. J. Information in the Labour Market, J. polit. Econ. 70 (5), supplement, 1962, p. 94 ff.

65. Nosow, S. Toward a Theory of the Labour Market Soc. Forces 33, 1955, p. 218 ff.

determinants may not be associated with wages or even job related, as chapter two showed. The Fife survey will examine these factors as they have affected the mobility of the workers in the sample. Certain aspects will be easier to examine than others e.g. housing and unemployment, since direct questions may be addressed to the interviewees. Other features will be outside the scope of the survey, e.g. to measure the impact of government policy on agricultural employment would require quite a different approach. The fact that these have had to be excluded must not be forgotten when analysing the results.

CHAPTER 4

THE MARKET FOR AGRICULTURAL LABOUR

4.01 Introduction

It is now proposed to consider more specifically the contribution by economists to the study of the agricultural labour market. The discussion in chapter 1 has already highlighted the changing size and composition of the agricultural labour force in Scotland; the considerable reduction, both in relative and absolute terms, in the labour force was noted as well as its tendency to have an age structure skewed to the right.

These changes are not limited to Scotland, or the United Kingdom, as Table 4.1 shows in its compilation of agricultural labour force figures for four Western industrialised countries, 1955-1969. This decline has been evident throughout this century, e.g. in 1910 45.4 per cent of the Swedish labour force was in agriculture, but by 1970 only 6.8 per cent;[1] in the United States and Canada the proportion engaged in agriculture has shown a similar decline.[2] Even in the developing countries, although in most cases there have been no absolute reductions in the numbers engaged in agriculture as yet, there have been relative reductions: a typical developing country's rate of growth of the non-agricultural and agricultural population would be four per cent and 1.5 per cent

1. Isaksson, N. and Lindquist, L. Macro-Analysis of Changes in the Agricultural Labour Force, Lantbr. Hogsk. Meddn., Ser A, Nr 162, 1972.

2. Fuller, V. and Beale, C. L. Impact of Socio-economic Factors on the Farm Labour Supply, J. Fm. Econ. 49, 1967, p. 1237 ff; Southern J. H. National Agricultural Policy Considerations, J. Fm. Econ. 48, 1966, p. 1121 ff; Yeh, M. H. The Labour Market with Particular Reference to Canadian Agriculture, J. Fm. Econ. 49, 1967, p. 1257 ff.

respectively.[3] In the planned economies of Eastern Europe there has also been a similar move away from agriculture, e.g. in Hungary from 34.9 per cent of its employed population in 1961 to 26 per cent in 1970.[4]

3. Metcalf, D. The Economics of Agriculture, 1969.

4. International Labour Office Year Book of Labour Statistics 1971.

TABLE 4.1

Absolute and Relative Distribution of the Civilian Labour Force[4] between the Agricultural and Non-Agricultural Sectors

		1955		1960	
		No.	%	No.	%
United States[1]	A	7061	11.1	5458	8.3
	B	56531	88.9	60320	91.7
United Kingdom[1]	A	1029	6.6	909	5.7
	B	14585	93.4	15008	94.3
France[2]	A	5041	27.9	4189	22.4
	B	13686	72.1	14523	77.6
Germany[1]	A	2000	14.0	1662	10.3
	B	12330	86.0	14487	89.7

		1965		1969	
		No.	%	No.	%
United States[1]	A	4361	6.1	3606	4.6
	B	66727	93.9	74296	95.4
United Kingdom[1]	A	736	4.5	625	4.0
	B	15625	95.5	15151	96.0
France[2]	A	3480	17.8	3009	15.1
	B	16080	82.2	16968	84.9
Germany[1]	A	1364	8.1	1178	7.0
	B	15484	91.9	15608	93.0

(Source: Manpower Statistics 1954-64, O.E.C.D. 1965,

Labour Force Statistics 1958-68, O.E.C.D. 1971).

Note:

1. Figures for males only.
2. All civilian labour force.
3. Figures relate to 1961.
4. All figures relate to employers as well as employees.

A. Agricultural Sector.

B. Non-agricultural Sector.
Worker numbers given in thousands.

Statistics as to the age structure of agricultural workers in other countries are more difficult to find. In Table 4.2 statistics for Sweden and Germany show the proportion of workers aged 45 years and over to be 56.3 per cent and 58.1 per cent respectively.

TABLE 4.2

Age Distribution of Agricultural Workers in Sweden and West Germany

SWEDEN

Age	Under 19	20 to 24	25 to 29	30 to 34
Percentage	6.8	4.8	5.5	7.1
	35 to 39	40 to 44	45 to 49	50 to 54
Percentage	9.0	1.0	11.2	12.0
	55 to 59	60 to 64	65 and over	
Percentage	11.6	10.6	10.9	

Note: These percentages are for 1960 and refer to economically active males.
Total number = 408,087.
(Source: Statistisk Arsbok for Sverige, 1967 Table 22).

WEST GERMANY

Age	Under 24	24 - 42	42 - 45	45 - 49	Over 50
Percentage	3.5	7.7	30.8	*19.4	*38.7

*Total = 58.1

Note: These percentages are for April 1970 and refer to male employees solely employed in agriculture.

Total number = 11.3 million.

(Source: Statisches Jahrbuch fur Die Bundesrepublik Deutschland 1971, Section VIII, Table 7).

A further international comparison, in terms of relative wages in agriculture and industry, can be made; Table 4.3 shows the wages of agricultural workers in countries other than the United Kingdom. Germany appears to have the lowest relative pay for its

agricultural workers. In general the agricultural worker in all these countries is seen to receive wages significantly lower then those in industry.[5] However, variations in the accepted standard of living and purchasing power make a too rigorous comparison impossible.

TABLE 4.3

Relative Incomes in Agriculture and Manufacturing Industries for Selected Countries

	Canada (Dollars)		U.S. ($)	
	A	B	A	B
1961	53.9[1]	74.45[2]	49.0[3]	92.34
1970	77.5[1]	119.69[2]	82.0[3]	133.34

	Sweden (Kron)[4]		U.K. (£)[5]	
	A	B	A	B
1961	4.58	6.82	219/7	317/10
1970	10.16	12.85	350/10	578/3

	Germany (D.M.)	
	A	B
1961	220[6]	525.88
1970	494[6]	1044

(Source: Year Book of Labour Statistics, Tables 19 and 23, I.L.O., 1971).

Note: 1. Inclusive wage rate;
2. Weekly earnings;
3. Weekly cash rate plus lodgings;
4. Hourly wage rates;
5. Weekly earnings;
6. Includes board and lodgings;
A. - Income of agricultural workers
B. - Income of industrial workers

5. Yeh op. cit; Fuller op. cit.

It is in the context of the decline in the agricultural labour force, its age structure and persistently low incomes that the literature on the market, and the mobility of agricultural workers will be considered. Discussion will be concentrated under two heads:-

A. The Theoretical Model of the Labour Market.

B. The Factors Affecting the Mobility of Agricultural Labour.

THE THEORETICAL MODEL OF THE LABOUR MARKET

4.02 Analytical Framework

The reasoning adopted by many agricultural economists to explain why agricultural workers fail to obtain wages equal to those paid to other industries is developed from the neo-classical theory of the labour market. This treats the labour market as an extension of the commodity market. Applying this analysis to the agricultural labour market it tends to be assumed that:-

a. The marginal product of labour is less in agriculture than elsewhere in the economy; that is the labour market is in a state of disequilibrium.[6]

b. The transfer of labour from agriculture to other industries will increase the wage of the migrant, since he will have a higher marginal product elsewhere; it will also raise the marginal return of labour remaining in agriculture.

c. If the rate of return to agriculture labour remains below that of industrial workers then the rate of migration has not been sufficiently high to compensate for other factors e.g. technological progress.

The first part of the discussion will set out the arguments used by proponents of this neo-classical model. These points will be assessed and the underlying assumptions examined. In this critique

6. Disequilibrium conditions imply that labour of similar capacities is not earning similar marginal rates of return.

the explanation given by economists who consider the market to be in a state of dynamic equilibrium[7] will be outlined. Particular emphasis will be placed upon the work of Hathaway, Perkins and Gallaway[8], since their studies represent a systematic analysis of data on gross movements, wage changes and other related factors. The emphasis of their work is in general accord with that adopted by the job opportunity theorists, as outlined in chapter two. Reference will be made to the evidence adduced in econometric studies where appropriate, and the contribution of these models will also be summarised at the end.

4.03 The Neo-classical Model

If it is assumed that the market is in disequilibrium then it follows that agricultural labour is in over supply, and that workers are not maximising their marginal rate of return. An able defender of this position is Tweeten[9] who calculated that 40 per cent of the United States' agricultural labour force was surplus to requirements in the period 1952 to 1961. To reach equilibrium this portion of the labour force must be encouraged to leave and capital investment increased. This assumption of disequilibrium is made by a number of other economists.[10] The causes of disequilibrium are

7. i.e. labour of comparable capacity is already earning similar wages, whether it is employed in agriculture or elsewhere in the economy; see also Johnson, D. G. World Agriculture in Disarray, 1973, pp. 212-222.

8. Hathaway, D. E. and Perkins, P. B., Farm Labor Mobility, Migration and Income Distribution Amer. J. agric. Econ. 50, 1968, p. 342 ff; Gallaway, L. E. Geographical Flows of Hired Labor Amer. J. agric. Econ. 50, 1968, p. 199 ff.

9. Tweeten, L. G. Theories Explaining the Persistence of Low Resource Returns in a Growing Farm Economy Amer. J. agric. Econ. 51, 1969, p. 798 ff.

10. Gisser, M. Needed Adjustments in the Supply of Farm Labor J. Fm. Econ. 49, 1967, p. 806 ff; Metcalf, D. op. cit; Bellerby, J. R. Agriculture and Industry Relative Income, 1956.

technological change, economic growth and inflation.

Technological change is a new procedure, improved machinery, variety, breed or management system which increases output for a given value of inputs. In the United States, Tweeten[11] estimates these changes to have increased output by an average of two per cent per year in the period 1947 to 1958. Between 1964/5 and 1969/70, Power and Harris[12] calculate that there was an 18.8 per cent decline in the manual labour input to United Kingdom agriculture; three quarters of this reduction they attributed to "technological shift". This technological development has been described as an attempt by the industry to compensate for depressed product prices.[13] In fact, all that is achieved is increased output which depresses prices even further as demand fails to match the increased supplies available. Despite the force of this argument it appears that in the United States, in the period 1960-1968, it was the pressure of rising costs rather than depressed prices which affected profitability.[14] As farmers relied more and more on off farm supplies they were increasingly vulnerable to price increases in such items as fuel oil and fertilisers.

Continued economic growth in the whole economy impinges directly upon agriculture since it relies upon the increased substitution of capital for labour, thus reducing the capital-labour

11. op. cit. p. 800.

12. Power, A. P. and Harris, S. A. Agricultural Expansion in the United Kingdom with Declining Manual Labour Resources, Treasury Occasional Paper No. 7, H.M.S.O. 1973, p. 12.

13. Cochrane, W. Farm Prices: Myth and Reality, 1958.

14. e.g. in the United States in the period 1960 to 1968, Tweeten op. cit. p. 801.

price ratio.[15] As this price ratio falls throughout the economy it forces the farmer to adjust his own usage of capital with respect to labour. For example, in 1938/9 labour accounted for 26.8 per cent of United Kingdom farm expenditure, machinery 9.5 per cent and fertiliser 3.9 per cent. In 1966/7 these percentages were 19.9, 16.0 and 8.3 respectively.[16] This continued pressure is designated by Heady as a cause of disequilibrium.[17]

Agriculture is particularly prone to the affects of inflation, since it is essentially a price taking, rather than price setting industry. Inputs are frequently bought from a few large manufacturers and its produce is sold in markets where it can do little to affect prices. Consequently firms supplying agriculture are in a much better position to increase their prices to compensate for inflationary affects, than is the industry itself. Further, labour costs may be one of the major elements in the inflationary spiral, and so the opportunity cost of labour used in agriculture also rises.

If it is assumed[18] that:-

a. farm output may be aggregated into a single homogenous product

b. the aggregate demand for agricultural labour may be derived from the aggregate production function with respect to labour, multiplied by the price of farm produce

c. observed farm wages mark a point of intersection between demand and supply

15. Tyler, G. J. Factors Affecting the Growth of Productivity in United Kingdom Agriculture, 1948/65, in Agricultural Manpower, E.D.C. for Agriculture, H.M.S.O. 1968, p. 22.

16. A Century of Agricultural Statistics 1866-1966, M.A.F.F., H.M.S.O. 1968, p. 78.

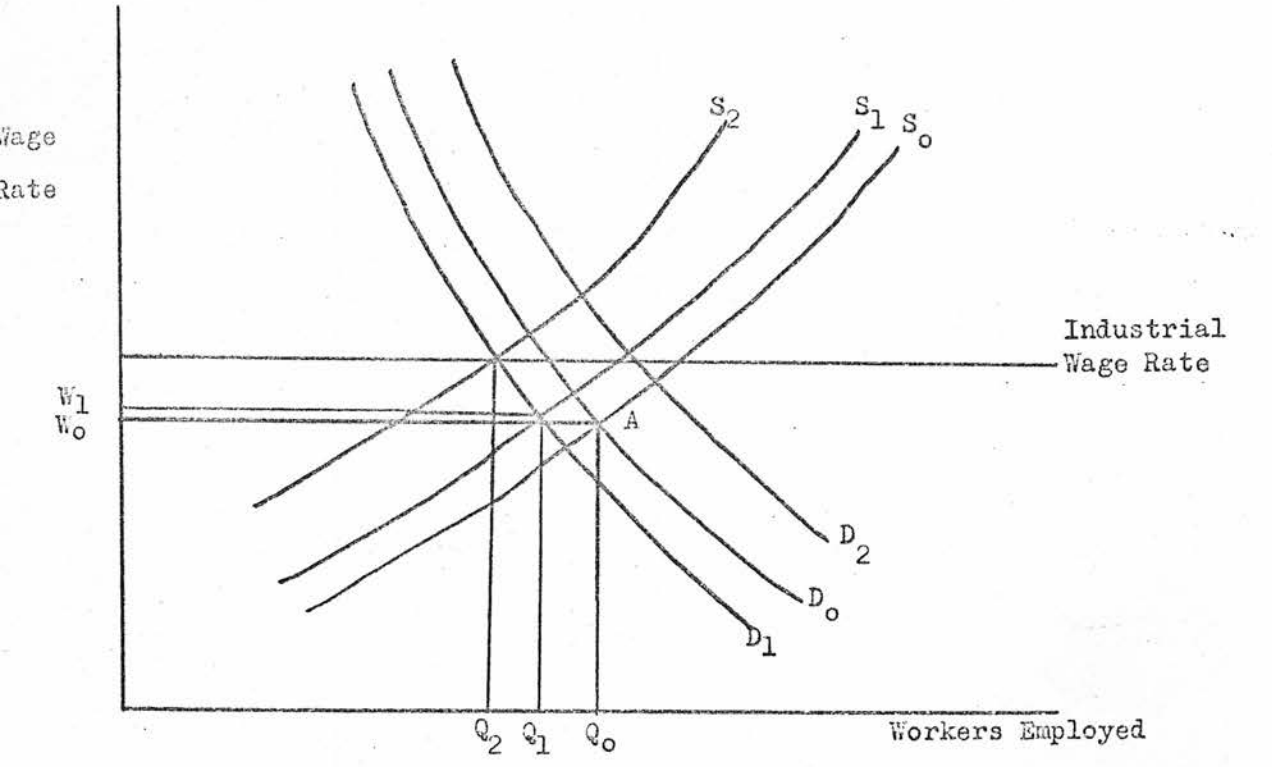
17. Heady, E. A Primer on Food, Agriculture and Public Policy, 1967.

18. Gisser op. cit.

. then the effect of these forces of disequilibrium may be shown diagrammatically.

FIGURE 4.1

Theoretical Model of the Agricultural Labour Market



(Developed from Gisser, op. cit.)

At the beginning of the period demand for labour (Do) intersects with the supply of labour (So) at point A, to give wage rate Wo. Over the ensuing period demand for labour will increase, as the demand for agricultural produce increases, to D_2. However, this shift never reaches its full extent since acting against the increased demand for labour is technological change and capital substitution for labour.

In diagram one, these forces are in fact assumed to move the demand curve to a new position (D_1) which is left of its original position. There has also been a reduction in the supply of labour (S_1) as workers have left the industry. This gives a wage rate W_1,

which is a slight increase on that offered at the beginning of the period. It is still below the industrial wage and, therefore, workers employed in agriculture are earning less than if they were employed elsewhere in the economy. The supply of labour should be further reduced to S_2, at which point returns to labour in all sectors would be equal. Until this point is reached labour is surplus by an amount $Q_2 \rightarrow Q_1$.

It is this failure of workers to leave agriculture in sufficiently large numbers which is said to be the cause of the persistence of the disparity between agricultural and industrial wages.[19] This inefficiency in the market, whereby workers of equal capacities obtain differing marginal returns is attributed to:[20]

a. Low supply price;
b. Imperfections in the market.

a. Low Supply Price: It is alleged that farm labour has a low supply price because of the non-monetary attractions of the job, occupational immobility and ignorance of job alternatives. The low supply price of labour is seen by Bellerby[21] as the prime cause of the low relative income of agricultural workers. In his discussion of the causes of the low return on farm labour Bellerby never makes it clear whether he believes that farmers[22] are accepting this low price by choice or under stress. In fact the term supply price is not confined by Bellerby to the wage rate necessary to recruit or retain labour, but it is also extended to cover the intensity and efficiency

19. e.g. Metcalf op. cit. p. 49.
20. Johnson, D. G. Functioning of the Labor Market J. Fm. Econ. 33, 1951, p. 75 ff; Metcalf op. cit. p. 47.
21. op. cit., see pages 32, 33, 44 and 80 - 83.
22. 'Farmers' is the generic term used by Bellerby to describe all labour engaged on the farm, whether operator, family or hired, op. cit. p. 17.

of effort involved.[23] These are contributions which are not easily quantified. Anne Martin rightly asserts[24] that Bellerby stresses the importance of the supply side at the expense of the factors affecting the demand for agricultural goods, and hence the demand for agricultural labour. If the industry over-produces goods for which there is an inelastic demand, then the price received will fall and with it the rate of return to labour. It is this aspect which Bellerby largely ignores, though mentioning the importance of avoiding world recession and large stockpiles of food.[25]

Tweeten also brings the question of low supply into his analysis.[26] The initial rate for labour is the acquisition price (P_A), that is the return necessary to attract hired labour to farms from employment elsewhere. Below this is a wage rate (P_T) which is the rate that agricultural labour would earn elsewhere in the economy (P_0) less the costs of transferring from one job to the other. There is a still lower rate (P_R). The difference between P_T and P_R is a measure of the attachment which farm workers have for the non-monetary values of a farm job, and their ignorance of alternative jobs. These rates are set out in diagrammatic form in Figure 4.2.

23. Op. cit. p. 40.

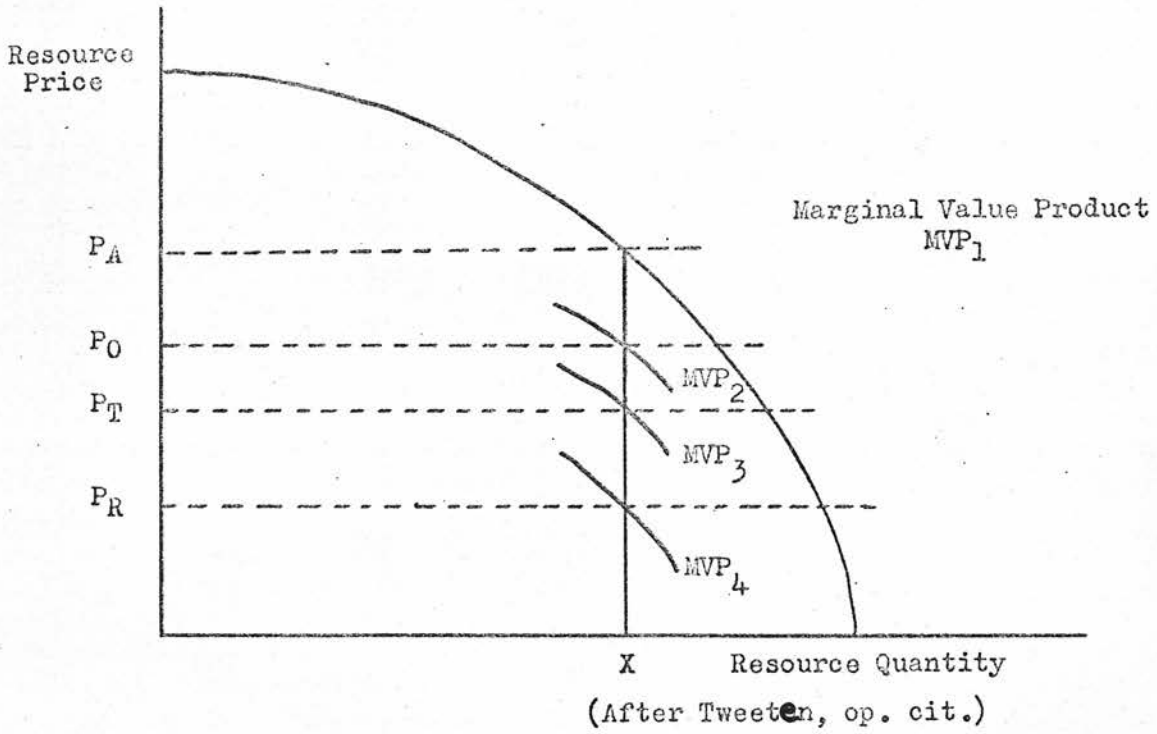
24. Martin, A. A Comment on J. R. Bellerby's Explanation of the Level of Income in Agriculture Fm. Econ. 9, 1958-61, p. 271 ff.

25. Op. cit. chapter 18.

26. Op. cit.

FIGURE 4.2

Hypothetical Marginal Value Product of Labour in Agriculture



(After Tweeten, op. cit.)

If the psychic attractions of farm life are in fact sufficient to reduce the supply price to P_R then the marginal value product of labour would have to fall below MVP_4 before job transfer took place.

b. Imperfections in the Market: The other major cause of this persistent inequality in wages is said to be imperfections in the labour market mechanism. The classical model assumes that workers have perfect knowledge, are able to evaluate alternative job wage rates and then move freely to the job offering them the highest wage. In this way flows of workers occur throughout the economy, and the marginal rate of return to labour of similar capacities approaches equality. When this does not happen it is a result of flaws in the market mechanism.

Without proper job information an agricultural worker will clearly find it impossible to make a proper choice between alternative jobs. It is provision of adequate job information services which Johnson depicted as of prime importance in remedying the income disparity.[27] He saw these employment exchanges as not only centres of information, but also for evaluating the skills of applicants and fitting them to the jobs available. Only then will workers be able to properly evaluate alternative wage rates.

Two factors particularly affect the ability of workers to move freely to alternative jobs. The first is unemployment and the second is trade union restrictions on the hiring of workers. These two may in fact be inter-related; that is unions may be far more restrictive in times of high unemployment in order to protect the jobs of existing members.

Unemployment in the non-farm sector is widely accepted as an important determinant of the rate of mobility from agriculture.[28] It operates upon the size of the labour force in three ways:

(i) it reduces the rate of occupational mobility out of agriculture;

(ii) it increases the rate of back movement from non-farm jobs;

(iii) it increases the rate of new entrants to farming as rural youths find alternative job opportunities limited.

27. Johnson, D. G. Policies to Improve the Labor Transfer Process Amer. econ. R. 50, 1960, p. 403 ff.

28. Hathaway, D. E. Occupational Mobility from the Farm Labor Force, in Farm Labor in the United States, ed. C. E. Bishop 1960; Cowling, K. and Metcalf, D. Labour Transfer from Agriculture: A Regional Analysis Manchester Sch. econ. soc. Stud. 36, 1968, p. 27 ff; Cowling, K. Agricultural Labour Supply and the Business Cycle: some regional predictions, in Agricultural Manpower, E.D.C. for Agriculture, H.M.S.O., 1968, p. 10 ff; Tweeton op. cit.

Cowling, Metcalf and Tyler[29] have made econometric studies of the United Kingdom in which unemployment was an important variable. In the study published by the Economic Development Committee for Agriculture[30], Cowling uses two models to explain and predict regional differences in the outflow of agricultural workers. The first model expresses migration in percentage terms as a function of level of unemployment, percentage change in level of unemployment and a trend term. The second model uses actual numbers of migrants as a function of change in the level of unemployment.[31] From these regressions Cowling was able to calculate, for example, that in South West England a two per cent level of unemployment would reduce migration from agriculture by two and a half per cent. A 50 per cent increase in the level of unemployment in the same region would reduce migration by two per cent. In all these studies unemployment is used as a proxy for job opportunities and the demand for labour in the economy as a whole. Unfilled vacancies which might be assumed to be a better indicator of demand within the economy[32], are not used as unemployment figures are more readily available.

Union membership is low in agriculture; a result of the atomistic nature of the industry, communication difficulties and the impossibility of operating a closed shop. This means that no effective union pressure could be operated against workers wishing to enter

29. Cowling and Metcalf op. cit; Tyler, G. J. Factors Affecting the Size of the Labour Force and the Level of Earnings in U.K. Agriculture 1948-1965 Oxf. Agrarian Studies 1, 1972, p. 20 ff; see section 4.06 Econometric Studies of the Labour Market for a discussion of these studies.

30. Op. cit. 1968.

31. Op. cit. pp. 12, 14.

32. Bowers, J. K. et al. The Change in the Relationship between Unemployment and Earnings Increases Nat. Inst. econ. R. No. 54, 1970, p. 44 ff.

agriculture. For the worker leaving agriculture there may be considerable union restrictions. Some ways in which this may operate against the agricultural worker are 'last in first out' redundancy arrangements, enforcement of tradesmans' qualifications and seniority rules. A worker encountering one or a combination of any of these practices may find it difficult to establish himself outside agriculture.

Another cause of imperfection in the market may be the ability of employers to exert monopsonistic pressure in the hiring of labour. Monopsony is tentatively suggested by Newby[33] in his discussion of low wages. Farmers have potential monopsonistic power because of the large number of firms, relatively few alternative jobs in many areas, low union membership and limited job information. In this situation farmers will increase profits by reducing their labour inputs, thus depressing the wage rate. There is some evidence for this argument in an area such as East Anglia where, in many cases, the wage paid bears little resemblance to the profitability of the farming. Capstick[34] records that this area contains some of the most profitable enterprises anywhere in the United Kingdom. Accordingly, since the returns per unit of labour are high, it might be anticipated that wages would be high. In fact many of the workers receive only the basic wage, with little opportunity for overtime on the farms. Unemployment amongst agricultural workers is high and there are few alternative forms of employment.[35]

33. Newby, H. The Low Earnings of Agricultural Workers: A Sociological Approach J. agric. Econ. 23, 1972, p. 15 ff.

34. Capstick, M. The Economics of Agriculture, 1971.

35. Fairhall, J. Down in the Furrow, The Guardian, 20th April, 1971.

4.04 A Critique

The major assumptions which underly this traditional model are summarised below.[36]

a. The labour market functions in the same way as the commodity market, with equilibrating forces predominating over disequilibrating forces in the long run.

b. Labour may be classified into homogeneous groups.

c. A substantial part of the farm labour force would earn more if transferred to non-farm employment; that is, wages in industry are not related to the level of earnings whilst in agriculture.

d. The low relative wage of agricultural workers has persisted because there has been insufficient migration out of agriculture. A result of the low supply price "accepted" by workers and imperfections in the market.

e. Maintenance of full employment is a major requirement for the increased transfer of workers from agriculture to industry, and this will remove the disparity between farm and non-farm wages.

These points will be discussed in approximately the order in which they appear above, though several of them are inter-related and will be dealt with together.

Chapter two showed how the work of the job opportunity theorists was seriously undermining the treatment of the labour market as an extension of the commodity market. However, a far more fundamental attack on the whole marginalist approach is being mounted by a group of eminent economists, e.g. Robinson, Kregel and Kaldor.[37]

36. Burkett, W. K. Effect of Non-Farm Employment on Agricultural Development J. Fm. Econ. 43, 1961, p. 1215 ff; Hathaway and Perkins op. cit.

37. e.g. Robinson, J. Economic Heresies 1971; Kregel, J. A. Rate of Profit, Distribution and Growth: Two Views, 1971; Kaldor, N. Alternative Theories of Income Distribution R. Econ. Stud. 23, 1955-6, p. 83 ff.

It is not within the scope of this study to become involved in a full discussion of this controversy.[38] However, there are a number of very real difficulties in adopting the neo-classical model of the labour market. Two of these difficulties are selected and discussed here. The first involves the difficulty of identifying and measuring capital, since unless this is done it is meaningless to talk in terms of the marginal product accruing to extra units of capital or labour. Bellerby attempts to deal with this problem[39], but does not adequately explain how the case of identical capital with different amounts of labour may be separated from the case of variable capital and the same labour input. Inability to establish this separation means that marginal product cannot be measured. Further, the fitting of the Cobb-Douglas function to time series data merely describes the historical rates of growth of labour, capital and output. It does not yield coefficients measuring the marginal productivity of the inputs.[40]

Secondly, the manner in which revenue is divided between profits and wages is a problem faced by classical theorists. Bellerby[41] suggests that revenue is divided according to a ratio determined by the diminishing returns to labour. That is the amount of capital available today, assumed to be constant when calculating the returns to labour, is itself a function of past price relationships, for present capital is financed out of previous returns. Thus to assign revenue between wages and profit in this way is to be guilty of circular argument. Kaldor summed it up as follows,

38. Harcourt, G. C. Some Cambridge Controversies in the Theory of Capital, 1972; Lachmann, L. M. Macro-economic Thinking and the Market Economy, Hobart Paper 56, 1973.

39. Op. cit. p. 339n.

40. Phelps-Brown, E. H. The Meaning of the Fitted Cobb-Douglas Function, Quart. J. Econ. 1951, p. 551 ff.

41. Op. cit. p. 347 ff.

"The theory does not therefore really amount to more than saying that the prices of today are derived from the prices of yesterday."[42]

The concept of disequilibrium in the agricultural labour market has been shown to be widely accepted amongst economists. This conventional wisdom is now being challenged by the results of empirical studies. Two major studies have been made so far[43], both in the United States, using data from Social Security sources.[44] The results of these studies have serious implications for all the assumptions outlined above.

Hathaway and Perkins[45] showed that large gross flows of workers do occur between agriculture and the rest of the economy, with 14 per cent of the farm workers leaving every year. This is compensated for by a return flow of workers in the proportions of nine entrants to ten leavers. This they take as evidence of a market working reasonably efficiently with workers able to move easily from one job to another. Similarly Gallaway[46] records that only 61.9 per cent of workers in his sample gave agriculture as their major job in 1957 and 1960. This figure is much lower than other industries.

Linked to these gross movements was the effect of mobility upon pay. Both studies showed that there was a marked correlation between earnings whilst in agriculture and those gained after leaving. It was calculated that almost 50 per cent of the migrants sustained a loss on leaving agriculture.[47] Further, workers earning

42. Kaldor op. cit.

43. Hathaway and Perkins op. cit; Gallaway op. cit.

44. The use of Social Security data has been questioned by Reinsel (A comment on Hathaway and Perkins Paper Amer. J. agric. Econ. 50, 1968, p. 745 ff); but the points raised by this critic were covered by Hathaway and Perkins' preliminary research (see their rejoinder to Reinsel).

45. Op. cit. p. 347.

46. Gallaway op. cit. p. 35.

47. Hathaway and Perkins op. cit. p. 344.

relatively high wages within agriculture were the most likely to make substantial long term gains by leaving. These results must imply a substantial qualification of the conventional explanation of movement of farm workers, and persistence of the low relative wage. They indicate that substantial adjustments do occur in the labour force but that these fail to bring improved wages for many of the migrants. This indicates that a significant proportion of agricultural workers are already earning at, or near, their capacity.

Whilst net changes in the United Kingdom agricultural labour is well documented, little information on grossflows of agricultural labour is available. A one per cent sample of National Insurance cards[48] showed that between June 1967 and June 1968 38,500 male workers left agriculture in Great Britain and 20,900 entered from other occupations. For Scotland, in the period 1966-7 to 1968-9, it has been calculated that the rate of gross migration from agriculture for male employees was 11.9 per cent compared with a net loss of only 6.6 per cent.[49] Statistics relating to associated wage changes are even more difficult to obtain. Indications are that many workers leave agriculture for urban employment after reaching the age of 50.[50] Such workers would not be well placed to obtain high wage employment, since their training and skills

48. Approximate Estimates of the Flows of Employees Between Industries, Gazette, 18 April 1970, p. 303 ff.

49. Wagstaff, W. R. Recruitment and Losses of Farm Workers, Scott. agric. Econ. 21, 1971 p. 7 ff.

50. McIntosh, F. A Survey of Workers Leaving Scottish Farms, Scott. agric. Econ. 22, 1972, p. 147 ff; this study showed that 30.6 per cent of farm leavers aged 50 to 59 went to urban employment compared with 22 per cent and 18 per cent of leavers in the age groups 30 to 39 and 40 to 49 years respectively.

have limited transferability[51], their age is against retraining and their health may further restrict choice of jobs. These facts give tentative support to the applicability of Hathaway's findings to the United Kingdom.

The classical theory assumes homogeneity of labour, since only thus can it satisfactorily develop the thesis that it is the poorest paid worker who will leave agriculture first and so improve his wage. The only difference between workers is said to be the level of their existing wage. Empirical analysis of the labour market reveals the difficulties of holding such a view. In both the American studies quoted above, the Social Security data revealed considerable differences between workers in terms of age, health, education and social background. To these must be added other factors such as aptitude, application and motivation. Much as Johnson[52] may wish to see the labour market treated as a commodity market, e.g. that for wheat, where an homogeneous product may be easily moved about, this is just not possible when dealing with such a variable factor as labour.[53]

Great importance was attached to the alleged low supply price of agricultural labour, the result of lack of job information, union restrictions, and aesthetic considerations. These are undoubtedly important factors but analysis of the Social Security data indicates that the way in which these affect mobility may need reappraisal.

51. Smith, J. H. Analysis of Labour Market Mobility, in Manpower Policy and Employment Trends, ed. B. C. Roberts and J. H. Smith, 1966.

52. Johnson, D. G. Policies and Procedures to Facilitate Desirable Shifts of Manpower, J. Fm. Econ. 33, 1951, p. 722 ff.

53. See G. V. Haythorne's comment on Johnson's paper, op. cit. p. 731.

In view of the large gross flows of workers it is doubtful whether lack of adequate information reduces movement. The effect it may have, is in reducing the success with which migrants establish themselves in non-farm jobs. This is certainly the view of Hathaway and Perkins[54], and they refer to the large return flows of workers as indicative of this mis-allocation of labour. Another point which must be borne in mind is that few job information enquiries relate directly to wage rates.[55] This is not the behaviour to be expected if workers are assumed to move in response to wage differentials. Similarly, union restrictions, rather than preventing workers from leaving agriculture, may ensure that they remain in poorly paid unskilled jobs where the level of union organisation tends to be low. Agricultural employment is still regarded by many as a way of life rather than a job and the level of job satisfaction is very high. However, it is questionable whether this is sufficient to account for the disparity in earnings between agriculture and industry. Certainly the data presented on gross flows indicates, in spite of any special values attaching to a farm job and rural life, a high mobility rate out of agriculture.

The impact of unemployment on mobility is regarded by Hathaway and Perkins[56] in much the same way as that for job information. That is, a sharp rise in the level of industrial unemployment produced a situation where fewer of the agricultural workers made gains on leaving agriculture. This in turn increased

54. Op. cit. p. 351.

55. Dufty, N. F. The Effects of Occupational Experience on the Use of Relatives and Friends as Sources of Information on Occupational Choice, J. Industr. Relat. 13, 1971, p. 304 ff.

56. Op. cit. p. 350.

the rate at which workers returned to agriculture as they failed to obtain suitable jobs elsewhere. The ability to develop a more comprehensive understanding of the effects of unemployment illustrates the importance of obtaining data on gross flows.

4.05 An Evaluation

The classical model of the agricultural labour market is attractive because of its analytical completeness. It offers both an explanation of what causes low wages in agriculture, why these persist and how they may be raised. However, setting aside the conceptual difficulties involved in the measurement of capital, the continued adequacy of this theory in the face of recent empirical studies must be seriously questioned. It is one thing to say that the marginal product of labour is lower in agriculture than in industry, it is quite another thing to relate this to the persistence of a low relative wage because the rate of out migration is too low.[57] The gross movements of workers have in fact been very high. The conventional explanation also tends to overlook the important qualitative differences between workers. The studies carried out by Hathaway, Perkins and Gallaway indicate that the market works well for the young skilled worker, who is able to make long term gains by leaving agriculture. The characteristics which often result in low agricultural earnings e.g. age, lack of education or ability, are just as likely to produce low industrial earnings for the worker. If this is so, then a simple policy of encouraging off-farm mobility will not be sufficient to raise agricultural wages. With the declining number of unskilled manual jobs there is evidence of the

57. Reder, M. W. Comment on Johnson's paper, Amer. econ. R. 50, 1960, p. 403 ff.

development of a dual labour market[58], where the disadvantaged worker finds increasing difficulty in obtaining a worthwhile job offering a satisfactory wage. In such a situation the provision of job information services and retraining schemes are important. Not necessarily, as the classical theorists suggest, to increase the rate of migration out of agriculture, but to ensure that those who do leave can more satisfactorily adapt to non-farm jobs.[59] This would reduce the wasteful movement of workers to unsuitable jobs and thence back to agriculture.

4.06 Econometric Studies of the Labour Market

The object of most econometric studies of the labour market is to quantify the coefficients of the factors which determine the demand for and/or supply of labour, and the agricultural wage rate. It is intended that these models should form the basis for a better "understanding of the relative strengths of the various economic forces at work" and that this would "be helpful for policy decisions, notably in regard to wages and prices in agriculture .... and for the purposes of National Manpower Planning".[60] This section outlines some of these studies. The different techniques used will be assessed and their contribution to the understanding of the agricultural labour market evaluated.

The pioneering work was carried out in the United States. One of the earliest contributers was Schuh[61], and his first model, for

58. Bosanquet, N. and Doeringer, P. B. Is There a Dual Labour Market in Great Britain? Econ. J. 83, 1973, p. 421 ff.

59. Hathaway, D. E. Migration from Agriculture The Historical Record and its Meaning, Amer. econ. R. 50, 1960, p. 329 ff.

60. Tyler op. cit. 1972 p. 20.

61. Schuh, G. E. An Econometric Investigation of the Market for Hired Labor in Agriculture J. Fm. Econ. 44, 1962, p. 307.

hired labour only, was a two equation simultaneous system. The choice of this model followed from his assumption that the agricultural wage and the level of employment are mutually determined by a set of exogenous variables e.g. non-farm income deflated by the consumer price index, an index of agricultural prices deflated by prices paid for factors of production (excluding labour), and the civilian labour force.[62] This initial work was developed into a regional model[63] and a more sophisticated national model.[64] In all three studies farm labour supply was expressed as a function of real farm wages, industrial wages, industrial unemployment and total civilian labour force. The demand for labour was expressed as a function of real farm wages, an index of farm prices, the price of other factors of production and technology. The equations used in the regional study are shown below:-

Supply: $Y_1 = a_1 + b_1 Y_2 + d X_{10} + r_1 X_4 + f_1 X_5 + t_1 X_9 + u_1$

Demand: $Y_1 = a_2 + b_2 Y_2 + e X_2 + r_2 X_4 + p X_6 + t_2 X_9 + u_2$

Where Y_1 is hired labour;

Y_2 is an index of composite wage rates in agriculture, deflated by the consumer price index;

X_2 is the index of all prices received by farmers for all products, deflated by the index of prices paid by farmers for items used in production, except labour;

X_4 is Y_1 lagged for one year;

62. Op. cit. p. 308.

63. Tyrchniewicz, E. W. and Schuh, G. E. Regional Supply of Hired Labour to Agriculture J. Fm. Econ. 48, 1966, p. 537 ff.

64. Tyrchniewicz, E. W. and Schuh, G. E. An Econometric Analysis of the Agricultural Labour Market Amer. J. agric. Econ. 51, 1969 p. 770 ff.

X_5 is the size of the civilian labour force;

X_6 is an index of technology;

X_9 is a trend variable;

X_{10} is non farm income 'corrected' for unemployment, deflated by the consumer price index (an estimate of the average annual income for non farm employees);

u is a random error term.

The example given above is representative of all the models, though the last study cited attempted to develop a model which included not only hired workers, but also the farmer and unpaid family workers. This model gave demand and supply equations for each component, with the price and quantity of farm labour assumed to be endogenously determined, subject to a set of exogenous variables. This approach gave a six equation simultaneous system. The attempt to include the farmer failed, with all the variables, except the trend term, having values not significantly different from zero. Statistically acceptable results were obtained for hired and unpaid family workers. The elasticity of supply with regard to non-farm wages was negative, and positive with respect to farm wage rates; in both cases the coefficient was greater than one. For example, with a long run elasticity of supply with respect to non-farm wages of 3.38 for hired labour, a ten per cent increase in industrial wages would reduce agricultural labour by 34 per cent, all things being equal. Coefficients were also obtained for the elasticity of demand with respect to the wage rate (negative) and farm prices (positive).

Cowling and Metcalf were the first to carry out an econometric study of this kind in the United Kingdom. Initially analysing the

determinants of agricultural wages inflation[65], they then developed models for supply and demand functions and regional rates of migration.[66] However, there was a fundamental difference in the assumptions made by Cowling and Metcalf and those made by Tyrchniewicz and Schuh, since the British pair assumed that the demand for and supply of agricultural labour were not determined simultaneously.[67] This difference affected the method of estimation adopted by Cowling and Metcalf and the agricultural wage rate was treated as a pre-determined variable, being a function of past prices.[68] That is, farmers experience certain output and price conditions in period t-1, and output in period t is planned on the basis of this experience. The level of demand for labour is a joint function of this anticipated output and the stock of machinery. The market was also assumed to be in equilibrium, but this assumption was later relaxed.[69] They admit the theoretical attraction of assuming employment and wages to be jointly determined, but defend the use of single equation models on the basis that the lagged response to wage

65. Cowling, K. and Metcalf, D. An Analysis of the Determinants of Wage Inflation in Agriculture Manchester Sch. econ. soc. Stud. 33, 1965, p. 179 ff; Cowling, K. and Metcalf, D. Determinants of Wage Inflation in Scottish Agriculture, 1948-63 Manchester Sch. econ. soc. Stud. 34, 1966, p. 189 ff.

66. Op. cit. 1968; Cowling, K. et al Resource Structure of Agriculture, 1970.

67. Cowling op. cit. 1968; Cowling et al. op. cit. 1970.

68. See n.42 for Kaldor's comment on this position; also see Cowling and Metcalf 1965 op. cit., conclusion.

69. Cowling et al op. cit. p. 62.

changes makes them feasible.[70] Variables introduced into the equations included level of industrial unemployment, rate of change in this level, agricultural and industrial wage rates, agricultural prices of labour substitutes, age, education and dummy variables to account for trend and regional variations. The formal model is shown below for the supply of agricultural labour in the jth region:-

$$Saj = f(Waj;\ \dot{W}aj;\ Wij;\ \dot{W}ij;\ Dij;\ \dot{D}ij;\ Aij;\ Eaj;\ R_j)$$

where Waj is the agricultural earnings;

$\dot{W}aj$ is the rate of change in agricultural earnings;

Wij is the industrial earnings;

$\dot{W}ij$ is the rate of change in industrial earnings;

Dij is the expectations about future employment opportunities;

$\dot{D}ij$ is the rate of change of expectations about future employment opportunities;

Aij is the age of agricultural workers;

Eaj is the educational attainment of agricultural workers;

Rj is the regional trend.

In all their models, whether explaining the rate of change in agricultural earnings or the regional migration of agricultural workers Cowling and Metcalf found industrial unemployment a significant factor. Unemployment was measured either in terms of percentage level or the rate at which this level changed, and it was assumed to be a proxy for the non-agricultural demand for labour.[71] It was recognised that unfilled vacancies would offer a superior indicator of the level of industrial demand for labour,[72] but it was not felt that this was a "hard enough" statistic to use in the calculations. The work of

70. Cowling et al op. cit. p. 62.

71. See section 3.07 'Level of Unemployment'.

72. Op. cit. 1965 p. 189;
Op. cit. EDC 1968 p. 11.

Phillips[73] is fundamental to this analysis. Though Phillips depicted a curvilinear relationship between the level of unemployment and the rate of change in money wages, Cowling and Metcalf favoured a simple linear relationship.[74] The application of the Phillips' curve involves the problem faced in using any relationship based upon data collected over a considerable time period,[75] namely, that many of the inter-actions which generated the original data may well have undergone substantial changes.[76] This weakness has been borne out since the mid 1960's as the explanatory power of the level of unemployment has declined[77] and, after 1969, even the advantage of using unfilled vacancies has gone.[78] One further problem in the use of levels of unemployment for predictive purposes, even if they give a good explanatory model for past relationships, is that it simply creates the need to estimate a very unstable exogenous variable, viz level of unemployment.[79] Levels of employment have proved notoriously difficult to estimate, and this problem is compounded at the regional level.[80] This discussion points to the need to re-examine the use of level of unemployment as the sole proxy for industrial labour demand. Also, certain variables were dropped from the equations, not necessarily because they were unimportant in determining the rate of migration, but because their coefficients were not statistically significant. This lack of significance was caused by poorly formulated data series.[81]

73. Phillips, A. W. The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, Economica N.S. 25, 1958, p. 283 ff.
74. Op. cit. 1965 p. 184.
75. Knowles, K. G. J. C. and Winston, C. B. Can the Level of Unemployment Explain Changes in the Level of Wages? Bull. Oxf. Univ. Inst. Statist. 21, 1959 p. 113 ff.
76. Phelps, Brown, E. H. The Underdevelopment of Economics, Econ. J. 82, 1972, p. 1, ff.
77. Bowers, J. K. et al, op. cit.
78. Some Aspects of the Present Inflation, Nat. Inst. econ. R. No. 55, 1971, p. 38 ff.
79. Thomas, W. J. Opening Discussion, Agricultural Manpower, op. cit. p. 40.
80. Power, A. P. and Harris, S. A. op. cit. Table 7.
81. This is admitted by the authors, see op. cit. 1968, p. 47.

Tyler[82] has developed a model for the United Kingdom which relies upon a system of simultaneous equations, as shown below:-

A.1. $X_t = f_1 (t, C_t, L_t, I_t)$

A.2. $L^s_t = f_2 (w_{at}, w_{it}, u_{it}, t\, L^s_{t-1})$

A.3. $L^d_t = f_3 (w_{at}, p_{at}, X_t, t, L^d_{t-1})$

A.4. $C_t = f_4 (r_t, p_{at}, X_t, t, C_{t-1})$

A.5. $I_t = f_5 (p_{ct}, p_{at}, X_t, t, I_{t-1})$

A.6. $L^s_t = L^d_t = L_t$

where X = gross output;

L = size of labour force;

C = capital stock;

I = 'other inputs';

t = time trend;

w_a = agricultural earnings;

w_i = industrial earnings;

u_i = percentage industrial unemployment

p_a = agricultural product price;

r = capital price index (excluding the rate of interest);

p_c = 'other inputs' price index.

It is assumed that agricultural output, employment, earnings, capital stock and other factors of production are endogenous variables jointly determined within these equations. Because the output variable is included in the system of equations Tyler has to make use of a production function relationship; indeed this is described as being of fundamental concern.[83] This is a definite departure from the techniques used by the economists already quoted.[84] Since the

82. Op. cit. 1972.
83. Op. cit. p. 22.
84. i.e. Cowling, Metcalf, Tyrchniewicz and Schuh.

'conventional' equation requires the inclusion of many different variables (e.g. wages, the prices of other factors of production, and also possibly lagged terms), the main benefit claimed for the use of a production function is that it reduces the number of variables that need to be specified, thus conserving degrees of freedom and lessening the problem of multi-collinearity. The difficulties encountered by Cowling and Metcalf in obtaining satisfactory statistics for some of the variables they wished to use is evidence of the benefits to be obtained from restricting the number of variables, however it is questionable whether Tyler's solution is entirely satisfactory. The use of a production function relationship for the whole of the United Kingdom agriculture involves some rather difficult computations to obtain the necessary data, e.g. the value of buildings and works was calculated by rounding up from data obtained in a survey of Oxford and Essex in 1960. Nor is any comment made on the difficulty of using this concept in the national context when specification error will induce bias into the parameter estimates.

Two models are developed by Tyler. The first one deals with the equilibrium situation, and the second introduces a dynamic adjustment equation to account for the disequilibrium situation. Neither model proved to be conclusively superior to the other in terms of theoretical or statistical acceptability. The results of both models pointed to the importance of the time trend in explaining the decrease in the number of agricultural workers and the increase in agricultural wages. This importance of the time trend is the same problem encountered by Tyrchniewicz and Schuh in their attempt to explain the mobility of farmers. Such a high value for the trend term must undermine the explanatory value of the model. An increase in industrial wages is said to have the same dual effect as the time

trend. However, it must be noted that the coefficients obtained for industrial earnings have standard errors almost as large as the values of the coefficients to which they relate.[85] A better result is obtained when the industrial earnings are weighted by the level of unemployment.[86] This will be a measure of the worker's anticipated earnings if he leaves agriculture, tempered by his probability of being unemployed. The higher value obtained for this variable[87] supports the position adopted by the job opportunity theorists, namely, that security of employment rather than high wages alone is of importance to a worker contemplating a change of job.

The ability to quantify the coefficients of factors which determine the rate at which agricultural employment and wage rates change is obviously attractive to the economist as well as the policy maker. If the economist is to accurately analyse the market and the necessary policy decisions implemented, then it is important to know the magnitude of these forces. Having admitted this a number of problems arise. The use of a sophisticated econometric model requires the availability of a reliable statistical series, and the lack of data on important variables has already been noted, e.g. unfilled vacancies in the Cowling model. Further, data varies in its completeness according to the level of aggregation and the method of collection. Tyler admits[88], for example, that the heterogeneity of the regions makes the use of national data for the United Kingdom

85. E.g. op. cit. p. 31, Table 2, equation B.2.17 gives a coefficient for log Wit-1 of -0.1798 with a S.E. of 0.1778.

86. See Schuh op. cit. 1962.

87. Op. cit. p. 27 Table 1, equation A.2.25.

88. Op. cit. p. 33.

problematic. Similarly, whilst Tyrchniewicz and Schuh concluded that labour responds to the national labour market[89], they admit that this probably reflects the more adequate data available at the national rather than regional level. Certainly empirical evidence gathered in surveys points to the worker being much more influenced by the local market.[90] There is also a need to introduce more weighting of the factors used in the models. If, for instance, variables are introduced to measure the importance of industrial wages or level of unemployment their explanatory power would be increased if, instead of using all industry figures, they were weighted according to the industries into which agricultural workers were most likely to move.[91] Cowling and Metcalf discuss this problem but felt unable to improve upon their all industry wage index.[92] Since 1970 statistics have been available for inter-industry movements[93] of workers, so such weightings could now be employed. The difficulties encountered in the use of time series data collected over a great many years to develop fundamental statistical relationships, e.g. the Phillips' Curve, have already been discussed. It must be recognised that the relationships which generated these coefficients will change over time and therefore weaken the explanatory power of a static model. The lack of data on gross flows of workers is another problem which should be studied more closely.

89. Op. cit. 1966, p. 549.

90. Reynolds, L. G. The Structure of Labor Markets, 1951; Robinson, D. Wage Drift, Fringe Benefits and Manpower Distribution, O.E.C.D. 1968; Mackay, D. I. et al Labour Markets Under Different Employment Conditions, 1971.

91. Sjaastad, L. Occupational Structure and Migration Patterns, in Labor Mobility and Population in Agriculture, ed. C. E. Bishop, 1967.

92. Op. cit. 1970 p. 66 ff.

93. Gazette op. cit. 1970 p. 303 ff.

From the example quoted[94] there is very real evidence of large flows between agriculture and industry, and vice versa, and these ought to be considered separately. Failure to do this may well confuse the effects of quite separate forces at work on the movement of workers as they leave agriculture, and those at work as they enter the industry.

Finally, there is the underlying problem that, unlike the seller of any other commodity, the character of the worker cannot be separated from the commodity (his input of labour) which he has for sale. This fact poses problems in the application of quantitative methods. Since it is the variables which relate specifically to work which are usually the most easily quantifiable e.g. wage rate and level of unemployment, these variables often emerge as statistically significant. The variables relating to the socio-economic aspects of the worker's role are not so easily quantified, but surveys have shown that they are no less important. The explanatory power of the model may be high in terms of R^2 [95], but unless it takes account of these other factors it will be less than a complete model of the labour market. It is in this context that this Fife study has a useful contribution to make. By building up data from this, and similar studies, econometricians will be able to make their models more useful for economic and policy decisions.[96]

94. Gazette op. cit. 1970.

95. "The mistake of relying on a high R^2 as an assurance of having traced the causal relationship between time series has been brought sharply to notice by the fate during the past two years of predictions made from regressions embodying a Phillips' curve." Phelps Brown op. cit. p.1.

96. Isaksson and Lindquist op. cit. p. 9;
Phelps Brown op. cit. p. 9.

FACTORS AFFECTING THE MOBILITY OF AGRICULTURAL LABOUR

This second section will outline the patterns of mobility of farm workers and discuss some of the factors which affect their movement away from agriculture. Use will be made of official and private statistics with the overall aim of improving the knowledge of the agricultural worker as a 'social entity'.

4.07 The Mobility of Agricultural Workers

Industrial Mobility: The study has shown so far that a considerable net reduction in agricultural workers has taken place, and that this has been accompanied by even greater gross movements of workers. However, little evidence exists as to which occupation and into which industry these workers moved. No national statistics are kept on this, and such surveys as those by the Department of Agriculture and Fisheries for Scotland[97] yield no information on this topic. Directed as they were to farmers, it would have been difficult to obtain detailed information on workers' movements. That they elicited gross flows and the number going into non-farm jobs was a marked improvement on the data previously available.

In 1970, the Department of Employment published figures which showed the structure of the approximate flows of workers between agriculture and other industries.[98] From these figures it is evident that 34 per cent of mobile agricultural workers moved into two industrial groups, namely construction and distributive trades;[99] other industrial groups showing significant intakes of

97. e.g. McIntosh op. cit. 1972.
98. Department of Employment op. cit.
99. Op. cit. Table 3, p. 306.

workers were electrical and engineering goods, miscellaneous services, and public administration. Agriculture's intake of workers from other sectors came predominantly from these same industrial groups. To make this comparison more emphatic these five industrial groups are set out below with their percentage flows into and out of agriculture:

TABLE 4.4

Proportional Flows of Workers Between Agriculture and Selected Industrial Groups

	Engineering and Electrical Goods	Construction	Distributive Trades
	VI	XVII	XX
% Flows from Agriculture	8	20	14
% Flows into Agriculture	7	16	19

	Miscellaneous Services	Public Administration
% Flows from Agriculture	9.0	9.0
% Flows into Agriculture	7	11.0

(Note: In no instance does a proportional gain to agriculture indicate a gain in absolute terms - see Table 4.1).

This table shows that these groups take 60 per cent of workers leaving agriculture and also provide 50 per cent of the recruits to agriculture who have had previous industrial experience. It should be noted that no data is available under Minimum List Headings.

The D.E.P. figures do not reveal flows of workers by M.L.H. classification. This severely restricts any comments which might be made as to the nature and causes of these flows. However, it might

be said that construction is an industry in which the general farm-worker can easily find a place as a labourer, because he is accustomed to hard manual work out of doors with little supervision; the tractorman is used to working with machinery mechanically similar to construction equipment. As there is no indication as to which of the 19 sectors of the electrical and engineering goods industry the workers moved, it is difficult to suggest definite reasons for these flows. Possibly this industrial group also provides employment both for general workers and for semi-skilled operators. The distributive trades provide opportunities for storemen and deliverymen; public administration will be attractive by virtue of the opportunity offered for general labourers and drivers. Farmworkers who move into other sectors do not always stay there permanently. It has been suggested that the return flows into agriculture may be composed of a high proportion of ex-agricultural workers returning to the industry.

A final point to be made here is the advisability of using these aggregate figures to analyse the agricultural labour market, when it is possible that a major bulk of these gross flows may relate to either workers in fisheries or forestry. This problem is less severe when figures given by the Ministry of Agriculture and Fisheries[100] are compared with the net reduction shown in the Gazette figures. The net decline in the agricultural labour force in Great Britain, 1967-68, as revealed by the statistics compiled from the June Agricultural Census, was 18,059. This compared with the net decline shown in the Gazette figures for agriculture, fisheries and

100. Agricultural Statistics 1968/69, H.M.S.O. 1971.

forestry of 17,000. Allowing for the possible sources of error in the Gazette figures as noted above these figures seem to be closely comparable.

Hathaway and Perkins found some evidence of similar flows in the United States.[101] They also found evidence of different flows for each age group: the younger workers went into manufacturing industry where opportunities for long term gain were higher; older workers tended to move into public service and distributive trades, because barriers to entry were lower.

In the United Kingdom there are no statistics on the occupations taken up by farm workers within these industries. A priority, one would expect occupational choice to be related to workers' education, farm job, general ability and adaptability. The younger worker may well be best suited to take up the semi-skilled and supervisory posts, whilst the older worker is left with the unskilled jobs.

Johnson[102] gives some indication of socio-economic position gained by farm migrants and compares this with non-farm migrants:

101. Hathaway and Perkins op. cit.

102. Johnson, D. G. Comparability of Labor Capacities of Farm and Non-Farm Labor, Amer. econ. R. 43, 1953, p. 246 ff.

TABLE 4.5

The Positions Taken Up by Farm and Non-Farm Migratory Workers

	URBAN		RURAL	
	Non-M	M	Non-M	M
Proprietors and managers	12.4	5.4	12.8	6.9
Professional and semi-professional	6.5	3.9	4.7	4.0
Clerical and salesmen	18.4	12.7	9.9	5.1
Craftsmen and foremen	19.1	16.0	17.6	12.1
Operatives	22.8	26.4	25.6	22.3
Service Workers	8.9	12.7	5.1	14.3
Labourers	10.5	16.9	15.3	18.1
Domestic Service	0.5	0.8	0.6	0.6

Non-M = Non-migration M = Migration

(Note: These figures include farmers as well as workers).

The ability to move into alternative occupations is of course related directly to the transferability of skills. Many agricultural skills are not directly transferable to other industries,[103] and a successful transfer will often depend upon the ability to learn new skills; but there is every indication that many farmworkers are quite capable of retraining and competing with industrial workers.[104]

Geographical Mobility: The difficulties of defining boundaries for geographical labour markets, already noted[105], is certainly a problem in analysing agricultural labour markets. The problem, as in the case of occupational mobility, is aggravated by the absence of statistics. One of the most detailed studies in the United Kingdom was that by J. S. Nalson;[106] it related, however, to

103. Smith op. cit.

104. Benewitz, M. C. Migrant and Non-Migrant Occupational Patterns, Industr. Lab. Relat. R. 9, 1955-6, p. 255 ff.

105. See section 3.05.

106. Nalson, J. S. Mobility of Farm Families, 1968.

farm families and not farm workers. The study covered eight parishes in the Pennines and indicated a high degree of mobility amongst farm families. Of the families studied, 19 per cent had moved in from outside the area of study. Nalson did not indicate whether those who had left farms in the area also left the area.

The assumptions of Tyrchniewicz and Schuh[107] that farm workers respond to general conditions in the national labour market has already been challenged. There is no evidence to suggest that the majority of agricultural workers, no more than any other group of workers, are willing to move over long distances to compete in such a market.

To regard administrative boundaries and local labour market limits as coterminous is a mistake already mentioned. Nevertheless, studies such as Gallaway's[108] showed the strength of even administrative boundaries. It indicated that, not only do workers need to cover the monetary costs of removal but they need a financial inducement to compensate for the effects of union regulations, retraining and the 'pain' of leaving a known locality and friends.[109] These barriers Gallaway believed were strongest for workers moving from a low wage area to a high wage area, which means that workers are at a definite disadvantage in moving from a rural to an urban area.

Hathaway and Perkins[110] showed that two-thirds of the workers leaving agriculture in fact took another job in the same area. The workers with the highest potential for inter-industry mobility were the ones most likely to move geographically. Agricultural

107. Op. cit.

108. Op. cit. 1968.

109. Sjaastad, L. D. The Costs and Returns of Human Migration, J. Polit. Econ. 70, Supplement, 1962, p. 320 ff.

110. Op. cit.

workers within 50 miles of a town showed a higher tendency to move into industry, possibly a reflection of their greater knowledge of amenities and job opportunities in these towns. Most migrants moved to towns of less than 50,000 inhabitants. Once outside the 50-mile radius round towns there was no obvious difference in the potential mobility of agricultural workers.

The effect of urban life upon migration has been demonstrated in a study carried out in Cambridge.[111] This was a study carried out to determine the ability of a factory situated ten miles from Cambridge to recruit staff. It was found that the recruitment of extra staff living in the surrounding villages might well prove difficult in the face of continued movement into the suburbs of Cambridge, induced by the higher wages of industry and the life of the city. Reverse commuter flows from these suburbs to the rurally situated factory was suggested.

Within the European Economic Community (E.E.C.) workers, although not necessarily agricultural workers, do appear to move over longer distances. Recent statistics[112] show large flows from Italy, which has a relatively large agricultural sector, to Germany, which is much more industrialised. The exact implications of E.E.C. membership for the British agricultural labour force is not yet clear; the Select Committee on Agriculture's 1967 Report[113] did not consider that serious difficulties would be caused for workers by entry; that is, British farm workers would not suffer from an

111. Seear, B. N. and Thurley, K. E. Problems of Employee Recruitment in a Rural Area, Brit. J. Industr. Relat. 1, 1963, p. 241 ff.

112. Yannopoulos, G. N. Economic Integration and Labour Movements, in Economic Integration in Europe, ed. by G. R. Denton, 1969.

113. Select Committee on Agriculture British Agriculture, Fisheries and Food and the European Economic Community, Vol. 1, in Parliamentary Papers, 378-XVII, 1966-67.

influx of Continental labour competing for their positions. The Committee also believed it unlikely that many British agricultural workers will show any wish to move to the Continent in search of either agricultural employment or their first non-farm job.

4.08 Socio-economic Factors

Age: The profound effect of age upon mobility was noted above[114] and this relationship is no less true for agricultural workers. A sample survey of 3,000 farms in Scotland[115] gave useful age-profiles on the number of workers leaving by age group, and the occupations to which they went.

TABLE 4.6

Age Distribution of Men Leaving Farms in the Sample

Age Groups	20-29	30-39	40-49	50-59	60-64
Proportion of Workers Leaving	24.9	17.3	10.4	10.3	11.6

Age Group	65+
Proportion of Workers Leaving	29.4

This table shows clearly a high turnover of workers in the 20-29 age group, and a decline in this rate through the next two age groups to the lowest rate in the 50-59 age group; it then increases again.

114. See section 3.07.

115. McIntosh, F. A Survey of Workers Leaving Scottish Farms, Scott. agric. Econ. 19, 1969, p. 191 ff.

The distribution of occupation by age group was as follows:-

TABLE 4.7

Subsequent Occupation of Men Leaving the Sample Farms, by Age Group[116]

Age	20-29	30-39	40-49	50-59	60-64	65 Plus
Other Farm Employment	40.1	42.2	42.3	39.3	16.7	-
Other Rural Employment	21.2	20.0	18.3	14.8	16.7	16.0
Urban Employment	29.2	26.7	19.7	36.1	29.1	20.0
Emigration	1.5	3.3	2.8	-	-	-
Other	3.6	3.3	5.6	9.8	10.8	8.0
Not Known	4.4	4.5	11.3	-	16.7	56.0
	100.0	100.0	100.0	100.0	100.0	100.0

It will be seen how the proportion obtaining other farm jobs remains relatively constant in all age groups before the age of 60. After this it drops quickly with no workers of 65 plus recorded as taking other farm jobs. The number taking urban jobs is seen to decline with age until the worker reaches 50, after which it rises until normal retiring age is reached. There is an absence of other age related variables in the survey to explain this. A previous suggestion in this thesis[117] is that workers may begin to suffer from ill-health or that they are seeking security of accommodation before retirement. Marital status and the number of dependents are also related to this pattern.

Housing: The provision of housing for agricultural workers has long been a source of bitter contention amongst

116. Op. cit. Table 134.

117. See section 3.07.

agricultural workers. Tied housing, regarded by many farmers as a costly but essential factor in the running of the farm business[118] has been called both an 'economic necessity' and a 'social evil'.[119] In some remote areas it may be the only form of housing readily available, and the standard of housing is showing a marked improvement, e.g. in East Lothian[120] the facilities of the 650 farm cottages[121] were as follows:-

TABLE 4.8

The Standard of Housing on a Sample of Farms in East Lothian

	New in Last 10 Years	Reconstruction in Last 10 Years		Mains Water
Percentage	4	23		97
	Electricity	Inside W.C.	Bathroom	Two Bedrooms
Percentage	98	97	97	70
		Three or More Bedrooms		
Percentage		30		

This table thus shows a high percentage of the cottages had modern facilities. Given that 16 per cent of the cottages were permanently unoccupied, it seems realistic to assume that most workers who wanted a cottage could live in one which was adequately equipped. Now that the provision of three bedrooms is more the accepted norm, so that children of different sexes do not have to share the same bedroom after a certain age, the young worker may leave

118. Cowie, W. J. G. and Giles, A. K. The Farm Worker: His training, pay and status, 1964.

119. Barr, J. Tied Farm Cottages, New Society, 25 February, 1965, p. 5 ff.

120. Mackel op. cit. p. 54.

121. Farm cottages: Accommodation provided by the farmer for his workers; in Scotland, usually in the form of a row of 3 or 4 apartment cottages, but now may take the form of semi-detached or detached bungalows or houses.

agriculture to obtain a council house with three bedrooms. Tied housing may facilitate movement within agriculture because it reduces search and removal costs; also it is a key factor in attracting suitable workers.

Much of the opposition to tied housing has been on the grounds of insecurity of tenure, also it is alleged to place the worker in a subservient position and reduce his money wage. Certainly there is a history of forceful evictions and abuse of the landlord's position, and these may well continue in certain instances. The National Union of Agricultural and Allied Workers contests in court about 2,000 evictions per year.[122] However, the 1965 Rent Act has gone some way to improving security of tenure.

It seems that the major weakness of the system lies in the difficulty for the worker trying to find alternative accommodation or to change occupations. The worker is in a cleft stick. He is often excluded from the housing he is best able to afford, local authority housing, because of the housing lists' rules which would regard his present tied cottage as adequate accommodation. Barr[123] cites the case of one man who had been on the housing list for 14 years because he was said to have suitable alternative accommodation. This may well be a problem for workers nearing retirement age[124], who know that the farmer will require the house for the next worker. The prudent farm worker, therefore, will take alternative accommodation as soon as it becomes available; often this means leaving agriculture permanently.

122. Fairhall op. cit.
123. Op. cit.
124. Mackel op. cit.

Education, Recruitment and Training:

Educational facilities in rural areas are undoubtedly improving. The number of schools dealing with all age groups has been considerably reduced, and most children have the opportunity of attending a secondary school, e.g. in 1969 there were only 179 schools, each with under 100 pupils, in England and Wales which were jointly primary and secondary schools.[125] It has been noted elsewhere[126] how the level of education was seen to affect the rate of migration out of agriculture in the Southern United States; a ten per cent increase in the level of education would increase the rate of migration from agriculture by six to seven per cent. It would be impossible to apply such figures directly to the United Kingdom situation, but Ruth Gasson[127] has demonstrated the impact of schooling on the careers chosen by children in British rural areas. She found that, not only was the quality of schooling important, but that the advice given to the pupils played a major part in the career chosen. She found that the sons of farmers considered a very limited range of alternative occupations, and were averse to entering the professions, to their long term detriment, because of influence at home and in the classroom.[128]

Job training in agriculture is predominantly of an informal nature, also a satisfactory wage structure is difficult when average plant size is so small: this means a considerable wastage of young

125. Department of Education and Science Education Statistics for the United Kingdom, H.M.S.O. 1969.

126. Gisser, M. Schooling and the Farm Problem, Econometrica, 33, 1965, p. 317 ff; see also section 3.07.

127. Gasson, R. Occupations Chosen by the Sons of Farmers, J. agric. Econ. 19, 1968, p. 317 ff.

128. See Bawdon, D. L. A Proposal to Limit the Flow of Human Resources into Agriculture, J. Fm. Econ. 49, 1967, p. 31 ff.

workers, since they can neither gain qualifications nor adequate remuneration.[129] Although it has been shown that youths are eager for the opportunity of completing some form of training, they rated agriculture, which is bottom in the list of industries offering apprenticeships and the like, third in their list of occupational choice.[130] Cowie and Giles[131] note that only eleven per cent of youths under 18 years in agriculture attended day-release classes compared with 38 per cent from construction and 41 per cent from mining and quarrying.

Now that there is a growing emphasis on training, the agricultural industry will have to resolve the 'Becker' problem[132] of who is to bear the cost of the training given. If the skills developed are easily transferable to other occupations, e.g. mechanical training, then, according to Becker, the worker or Government should bear at least some of the cost. If it is a skill specific to agriculture then the industry should bear the training cost.

Unions: Although agricultural unions were established early in the trade union movement, they have never drawn many agricultural workers into membership; nor have they been able to adopt national industrial action, restricting their industrial action to local, often bitter, disputes.[133] This is a reflection of the structure of agriculture, with relatively small farm work-forces geographically dispersed; together with the peculiar relationship which exists between the farmer and his men.

129. Whitby, M. C. Labour Mobility and Training in Agriculture, Westminster Bank R., August 1967, p. 43 ff; see also Wagstaff op. cit. p. 13.

130. Seear and Thurley op. cit.

131. Cowie and Giles op. cit.

132. See Becker, G. S. Investment in Human Capital: A theoretical analysis, J. Polit. Econ. 70, part 2, supplement, 1962, p. 9 ff; also discussion of this point in section 3.07.

133. Hodson, D. F. Labour Relations in Agriculture, University of Newcastle Agricultural Adjustment Unit, T. P. 13, 1970.

Agriculture boasts very few units with work forces of any size: only six per cent of all holdings in the United Kingdom employed four or more workers in 1968. However, it is wrong to conclude from this, as Newby does, that the withdrawal of hired labour would "not result in a curtailment of output comparable with such a withdrawal in industry."[134] The contribution to total output of the holdings in England and Wales which employ no full-time workers (in 1968, 67 per cent) is small: in the United Kingdom 80 per cent of the labour force (employed on 25 per cent of the holdings) produces 75 per cent of the total output. Further concentration in the industry, accompanied by more workers leaving agriculture would pose considerable problems if these men chose to take industrial action. Having said this, the detrimental effects of the structure of the industry upon union organisation can be seen in the considerable difficulty of campaigning for membership, stimulating branch activity, and getting members to take industrial action; communication is difficult and administrative costs are high. The 'peculiar relationship' between farmer and worker, with the farmer taking an active part in the running of the farm and working closely with his few employees makes for informal relationships governed more by norms than rules. Hodson, regarding this as a possible source of abuse[135], makes a strong plea for a contract of employment to regularise the worker's position.

The low membership of the agricultural trade unions means that they have no effect on the mobility of farm workers. The mobility of the worker will only be affected as he seeks to leave

134. Op. cit. p. 21.

135. Op. cit. p. 5; see also Newby op. cit., who disagrees with this suggestion and wants to rely solely upon the 'special relationship'.

agriculture and move into other industries where the level of union organisation may be much higher.

4.09 The Implications of Chapters Two to Four for the Fife Survey

This chapter concludes the survey of the literature on mobility and the labour market. Certain of the theoretical points arising from the literature are beyond the scope and resources of the proposed Fife Study e.g. because employers were not interviewed theories concerning employers' wage policies could not be tested. There are however, a number of very important factors highlighted in the literature which may be examined by a survey of employees.

One of the most important of these is to determine the motivation of workers in seeking a new job. Neo-classical theory assumes that the worker will move to maximise his wage after an appraisal of the available jobs and their respective wage rates. The job opportunity theorists suggest that economic and social security are far more important determinants of mobility. Also that a worker is often unable to compare several wage rates because of ignorance and imperfections in the market, and tends rather to move to the first job available to him. The Fife survey will therefore examine motivation, the reasons for leaving the last job and taking the present job, and the method of job search.

Another important aspect arising from the literature is the assumption that the wages of migrant agricultural workers rise after they leave the industry. Certainly the average wage of agricultural workers is below that of the average industrial worker. However, empirical studies in the United States have indicated that the ability to gain wage increases is dependent upon the characteristics of the worker. Many of the workers in these North American studies in fact made no monetary gain on leaving agriculture and a

number of them returned to the industry. What evidence there is available on gross flows in the United Kingdom suggests that a significant proportion of agricultural workers move to industries whose average wage is little different from the agricultural wage, e.g. public administration and distributive trades; an indication that there is a need to critically examine the general assumption that workers leaving agriculture in the United Kingdom gain a wage increase. The survey will therefore attempt to analyse gross flows of workers between agriculture and industry in Fife, and the change in money wages and fringe benefits on leaving agriculture. Related factors will also be considered e.g. age, job experience, skills, education and health of workers.

The review of literature has also underlined the importance of differentiating between voluntary and involuntary mobility. The study will attempt to assess the influence of the above factors on these two groups of mobile workers. A related topic which will be considered is the incidence of unemployment when last changing job.

Contrary to the assumptions of some of the econometric studies e.g. Tyrchniewicz and Schuh, surveys of sectors of the labour market indicate that workers respond to a very limited geographical market. This is the effect of such factors as ignorance and community ties. The Fife survey is designed to measure both the distance over which workers moved to their present job, and their reaction to possible future movement. The well defined occupational structure which exists within agriculture, plus the availability of tied housing, may well give a higher degree of geographical movement amongst workers remaining in the industry. Workers leaving agriculture face much more uncertain job specifications, possibly reducing their mobility. The type of accommodation occupied by a worker is of

great significance to this study since agricultural workers who are already in local authority housing can be expected to move more easily into industrial employment.

Finally, the review of literature has underlined the importance of considering all aspects of the worker's background, and not just those which are wage or even job related. For this reason the survey questionnaire contains a wide range of questions on age, education, household composition, union membership and health. Certain of these factors, have been established by previous surveys as having a profound effect on mobility, e.g. it is expected that the mobility of workers will decrease with age, possibly with a slight increase just before retiral.

CHAPTER 5

THE SURVEY

5.01 Introduction

This chapter will provide a brief introduction to the county of Fife, with details of its location, communication system, population and economic activity. This will be followed by an outline of the design of the main questionnaire. Finally a description will be given of the population to be sampled and of the procedure followed in generating the sample.

FIFE

5.02 Size and Topography

Fife is a broad peninsula bounded to the north by the Tay estuary and to the south by the Firth of Forth. Its western boundary is marked by the Cleish and Lomond Hills and the out-liers of the Ochils. Around the eastern part of the coast there is a series of picturesque fishing villages, like Crail and Anstruther. From Leven southwards to the Forth, there are industrial ports which include Kirkcaldy and Burntisland. There is also an extensive naval dockyard at Rosyth.

The countryside is undulating, reaching its highest point (1713 feet) just north of Loch Leven in the Lomond Hills. The soil is of two basic types. There are the soils which have developed in situ from the breakdown of the local strata. These are found predominantly in the higher parts of Fife and are usually based on volcanic rocks, e.g. the doleritic sills south of the River Eden.[1]

1. MacGregor, A. R. Fife and Angus Geology, 1968.

When these rocks weather down on gentle slopes they produce a very fertile loam, as in the valleys of the Eden and Leven.[2] The second type of soil is formed from the drift deposits brought down by ice or fluvio-glacial action. The fertility of this soil and the ease with which it is worked will be determined by the composition of the underlying boulder clay.

5.03 Climate

The climate is similar to that of the other eastern counties with west and south west winds bringing rainfall for most of the year. East winds tend to prevail from February to May only, when dry periods may occur. Rainfall is heaviest in the western part of the county, with as much as 50 inches over the Ochils, compared with 22 to 30 inches in the east.

5.04 Communications

The M90 and Forth Road Bridge provide easy and quick access from the southern part of the county into Edinburgh. The other major roads for industrial and through traffic are the A92/907 serving Kirkcaldy and the coastal towns; the A92 running north from Kirkcaldy through Glenrothes and so to the Tay Bridge road; the important west-east link from the M90 north of Milnathort to the Tay Road Bridge. Other roads, e.g. the A917/918 coastal road, carry a considerable volume of traffic in the summer months.

The main Edinburgh-Dundee-Aberdeen railway line runs through the county serving Dunfermline, Cowdenbeath and Cupar on its route. A fast commuter link with Edinburgh also serves the coastal towns as far as Methil. The ports of Methil, Kirkcaldy and Burntisland are members of the Forth Ports' Authority.

2. Smith, A. Fife (Third Statistical Account of Scotland), 1952.

5.05 Towns and Population Distribution

Total population of Fife in the 1971 census was 326,725 of which 145,525 were registered as economically active.[3] The major concentrations of population are to be found in the southern section of the county. Numerically the two most important towns are Kirkcaldy (50,325) and Dunfermline (49,855). Other towns or urban districts of significant size are Buckhaven and Methil (small burgh) (18,380), Glenrothes District Council (27,125) and Lochgelly District Council (25,895). The northern part has smaller towns like Cupar (6,601), the county town, and St. Andrews (11,633).

5.06 Industry

Coal: Fife has a long history of coal mining which reached its highest output in 1914. Since then there has been a marked reduction in the number of pits and a concentration on a number of modern ones, e.g. Frances and Seafield. There is also the large open cast workings at Westfield.

The original major expansion in the nineteenth century was based on the export trade but now the two major customers are the electricity generating board and the gas plant at Westfield. The Longannet mine and power station form a new and integrated unit with the coal moving directly from pit-head to power station. Fife accounted for 49 per cent of the South of Scotland Electricity Board's installed capacity in 1971.[4] Other industries supplied include iron and steel (150,000 tons) and local paper mills (200,000 tons).[5]

3. Census 1971 Scotland Second Preliminary Report, H.M.S.O., 1972, p. 75 ff.

4. Estimate given in 'An Economic Geography of Fife' published by Fife Education Authority, 1968, p. 44.

5. Op. cit. p. 39.

Engineering: The absence of iron ore has meant that Fife has never developed heavy industry comparable with that in the west of Scotland. There are relatively small ship and breakers' yards in the Forth ports; and firms in St. Monance and Newport concentrate on specialist wooden-hulled craft. There are also well established engineering firms associated with the mining and paper trades. Since 1960 new light engineering plant has been set up by means of grants allowed by the Local Employment Act of 1960. New industrial estates have been created, e.g. Donibristle and Hillend near Inverkeithing and Dunfermline. Glenrothes new town, originally established as a mining centre, has also attracted considerable industrial development since its designation in 1948. These developments have attracted a wide range of firms involved in light engineering, electronics and precision instruments.

Textiles, Paper and Linoleum: Fife has a long history of textiles and paper making. Many specialist types of paper (e.g. for cheques, electrical insulation and abrasives) are produced for home and export markets. Established floor covering manufacturers turned to linoleum production, principally in Newport and Kirkcaldy. Other firms produce woollens, carpets and fine fabrics.

5.07 Agriculture[6]

In 1971 the census of agriculture[7] listed 15.39 million acres of crops, grass and rough grazing in Scotland; in Fife there were just under 240,000 acres (1.56 per cent of the total). However, because of the high proportion of tillage (58.5 per cent of the county's total of crops and grass), Fife's contribution to Scottish agricultural

6. The purpose of this section is not to provide the same detailed analysis as was done in Chapter 1 for the whole of Scotland, but rather to show the importance of Fife within Scottish Agriculture.

7. Agricultural Statistics (Scotland), 1971 H.M.S.O., 1972.

output is considerable. Table 5.1 shows percentages calculated from the June 1971 figures. The Fife figures are shown first, and then calculated as a proportion of the total Scottish figures.

TABLE 5.1

Livestock and Crop Production in Fife

Crops	Acreage	Percentages of Scottish Figures
Wheat	10,611	12
Barley	71,341	9.2
Seed Potatoes	6,039	11.3
Main Ware Crop	8,388	20
Livestock	**Numbers**	**Proportions of Scottish Totals**
Total Dairy Cattle	26,537	4.2
Total Beef Cattle	56,007	3.4
Total Pigs	34,406	5.2
Total Sheep	102,522	1.37[8]

No figures are available for yield and output in the published statistics for Fife but, from the above figures, the major contribution of the county to Scottish agricultural output is evident; a position supported by the highly mechanised nature of farming within the county. Fife had five per cent of the tractors and nine per cent of the combined-harvesters recorded in the March, 1971 machinery census.[9] Accompanying this high level of mechanisation has been a decline in the labour force[10] from 3,352 regular full-time male employees in 1961[11] to 2,226 in 1971;[12] a 34 per cent reduction, compared with Scotland's reduction of 42 per cent in the same period.

8. This proportion of the national flock is low but it increases in winter; in December 1971 it increased to 2.2 per cent as a result of wintering.
9. Op. cit. Table 45.
10. See appendix 2.5 A-C for maps showing change in number of regular full-time male workers per '000 acres of crops and grass for Fife, 1950, 1960 and 1970.
11. Agricultural Statistics (Scotland) 1961 and 1962. H.M.S.O., 1964, Table 30.
12. Op. cit. 1971, Table 16.

Considering climate and soil types, the best arable land of Fife is found on Tayside, in the East Neuk and down the coast towards Leven and on the Forth coastal strip from Inverkeithing westwards; Stratheden and the Howe of Fife also hold good land. The medium quality soils of south-west Fife are used for mixed farming with dairying predominant; the highest regions of the Cleish and Lomond Hills are given over to poor grassland. Immediately south of Tayside farming varies from good arable land to pasture according to elevation and aspect.

THE QUESTIONNAIRE

5.08 Design of the Main Questionnaire

Questions were designed to gain information on the occupational, industrial and geographical mobility of two groups of workers: a sample of agricultural workers and a sample of those who had left the industry.[13] Also workers were asked questions about their willingness to move, expectations, job satisfaction, education, union activities, housing, health and family responsibilities, to provide a detailed background to the workers' mobility.

5.09 Outline of the Questionnaire[14]

Present Job: Questions 1 to 9 covered various aspects of the present job. In Question 1 the worker was asked to give a detailed description of his present job, in terms of the title and tasks performed.[15] A series of questions (1a to 2) then dealt with hours of work, skills required and duration of present employment.

13. The selection of these samples is discussed below in the section dealing with population.
14. See appendix 2.1.
15. See chapters 3 and 6 for a discussion of the coding.

Then the worker was asked questions on his evaluation of job conditions in general and of his present job in particular.[16] He was also asked for his opinion of his present job and whether, and for what reasons, he had attempted to find another job in the previous twelve months. The final question in this section dealt with his take-home cash wage, any change in the level of this wage when changing from his last job and any fringe benefits received.

Occupational and Industrial Mobility: In questions 10 to 13 the worker was asked to give details of previous jobs and industries. The number of jobs held since first starting work and details of the last two were recorded. If these last two jobs had both been in agriculture then the last non-farm job, if any was recorded. Question 12 undertook a detailed examination of the last two jobs as follows: position held, changes in pay, hours, duration of employment and reason for leaving. Any unemployment was also recorded, with the reason for this if the period exceeded a month.

Geographical Mobility: This was examined in questions 16 to 18. The fact of geographical mobility was first elicited and then details of date, location and distance moved were recorded. There were then two questions posing hypothetical questions relating both to occupational and geographical mobility. The worker was asked whether a better paid job would induce him to move to another area, and what other factors would influence him to make such a move. The second question dealt with the impact of redundancy and the willingness of the worker to move to find another job.

Other Factors: Questions 19 to 21 dealt with union membership; reasons for not joining a union, and the participation of his

16. All questions where the worker had to make a selection from a prepared list were reproduced on separate cards in large print so as to be easily read. Where there was a multiple choice a card was produced for each choice and rearranged for each interview to avoid bias caused by a set ordering.

work mates. How the worker first heard of his present job and his means of future job search were recorded in questions 22 and 23. The type of housing occupied was recorded in question 24a,b and its influence upon mobility assessed in questions 24c to 25. Finally questions 27 to 40 dealt with household composition, the occupations of wife and two eldest sons; as well as such personal details as age, place of birth, education, qualifications, health and its impact on work, and father's occupation.

5.10 Testing of the Questionnaire

The questionnaire in pilot form was tested on farms in East Lothian, a total of 10 trials were made. Originally it had been the intention to ask details of the last four jobs under question 12. In the light of the trial interviews it was decided to reduce this to the last two jobs, the reasons for this were:

1. Since workers found it difficult to recall details of jobs beyond the last two jobs, information gained would be of doubtful accuracy.

2. By asking details of jobs which the worker found difficult to answer there was a high risk of antagonising him, therefore reducing the accuracy of other questions too.

3. By asking details for four jobs the time taken to complete the schedule was greatly increased, thereby upsetting the interviewee and the employer if the interview were in working time.

This was the only major alteration made to the questionnaire as a result of the pilot survey.[17]

17. It was at this stage that the use of separate cards was introduced for questions where the worker had to choose between alternatives, e.g. question 3.

5.11 Target Population

The target population had two parts:

A. Male agricultural workers employed on Fife farms.

B. Male ex-agricultural workers from Fife and elsewhere presently working in Fife.

5.12 Sampled Population

The population of workers to be sampled was drawn up in the following ways:

A. Agricultural Workers: A list by parish of all farms over 50 acres in Fife was obtained and a random selection of these was made. Approximately half of these farms was selected, a total of 378, to whom the preliminary questionnaire[18] was sent. It was hoped by this means to generate a population of farm workers from which a sample might be drawn for interview.

B. Ex-agricultural Workers: A list of all 'principle employers'[19] in Fife was obtained and a questionnaire sent to them.[20] It was hoped by this means to generate a population of ex-agricultural workers from which a sample could be drawn.

5.13 Representative Nature of the Sample Population

Farms: The list of addresses of farms was the most up-to-date one available for Fife, recently consolidated to exclude units under 50 acres unless they were intensively farmed. All farms were then coded according to the main enterprises, although there was no record of the labour force. Because the list was so complete it

18. See appendix 2.2.A.

19. That is enterprises of sufficient scale to provide information to the Department of Employment; usually these are firms with at least 5 employees.

20. See appendix 2.3.A.

was held that selecting half of these farms at random would produce a sampling population of farm workers representative of the target population.

Firms: The only firms written to were those classified as 'principal employers' by the Department of Employment, and this may cause bias in the population generated. Some measure of the possible bias would be the number of male employees in Fife excluded by the sole use of these firms. It is possible to give figures for 1966 by comparing sets of official statistics. The Department of Employment estimated figures show that 73,975 males were employed in Fife in 1966.[21] In the same year the sample census recorded that there were 104,000 males in Fife aged over 15 years and either economically active or retired.[22] When subtractions are made for the number of men who were retired, classified as employers or in the armed services, this leaves 77,550 economically active male employees (i.e. 3,575 male workers or 4.6% of the male employees as recorded in the census, were apparently not accounted for by the Department of Employment statistics). With the resources available for the survey the improvement in results which might be gained by attempting to trace ex-agricultural workers amongst these employees did not seem justified.

5.14 The Preliminary Survey

Farms: To ensure a high response rate the preliminary questionnaire for farmers was restricted to a single sheet, and sent out with a covering letter.[23] The questionnaire asked for details of

21. Unpublished statistics provided by the Department of Employment and Productivity.

22. Sample Census 1966 (Scotland), County Report, H.M.S.O. 1967, Table 14.

23. See appendix 2.2.A,B.

male employees, apart from seasonal and casual workers. The farmer was also asked to give details of turnover in the previous 12 months; and his willingness to allow his workers to take part in the main survey.

Firms: The original list of firms supplied was correct for October, 1971, and it had been compiled for each Employment Exchange area by the respective Department of Employment main Employment Exchange Office. The following are the Exchange Areas in Fife: Anstruther, Cowdenbeath, Cupar, St. Andrews, Dunfermline, Inverkeithing, Glenrothes, Kirkcaldy, Burntisland and Leven.

The list as originally given contained 502 employers, excluding:

1. All employers under Minimum List Heading 001 since these came into the farm survey, i.e. 4 employers.

2. Kinross-shire from the Cowdenbeath Employment Exchange Area, i.e. 25 employers.

3. Bankers and solicitors were excluded from the list. There was only one bank and two solicitors' firms; they could hardly be expected to be sources of employment for ex-agricultural workers.[24]

Also multiple entries such as Fife County Council and the various hospital boards were treated as single employers so that correspondence could be directed to the main administrative office. Firms appearing twice in the lists at the same address were consolidated, being regarded as single employers.

The amendments made under 1 to 3 above resulted in the exclusion of 32 firms. Adjustments for multiple entries of public authorities and private firms excluded 70 entries, giving a net total of 402 firms. The addresses of these 402 employers were entered on

24. Approximate Estimates of the Flows of Employees between Industries, Gazette, 18 April 1970, p. 303ff., p. 306

index cards by Exchange Areas alongside their minimum list heading classification. Postal addresses were checked against the telephone directory.

The questionnaire was coded by exchange area (0 to 9) and each firm was given a code number between 00 and 99 within its Exchange Area. The distribution of firms by exchange area was as follows:

TABLE 5.2

Distribution of Firms in Fife

Exchange Area	Area Code[25]	No. of Employers in the Area
Anstruther	0	20
Cowdenbeath	1	57
Cupar	2	52
St. Andrews	3	24
Dunfermline	4	31
Inverkeithing	5	36
Glenrothes	6	57
Kirkcaldy	7	68
Burntisland	8	7
Leven	9	50
		402

The index cards for the firms were arranged within Exchange Areas alphabetically and serial coded at the same time as the questionnaire. This eliminated any danger of mis-identification of returns.

The questionnaire sent out to firms was longer than that sent out to farmers, but again the aim was to produce a form which would cause the minimum of inconvenience. Firms were asked to give their

25. The Exchange Area and firm codes were in fact united in the serial stamping, so that a questionnaire could immediately be identified by Exchange Area.

total number of clerical and production workers. Employers were also asked to enumerate any ex-agricultural workers, and to say whether these workers were in their first or subsequent non-farm job. Methods of recruitment and retraining were also recorded. Employers were asked to indicate their willingness to allow their ex-agricultural workers to be interviewed. The name and position of the person filling in the form was recorded alongside the date for which the figures applied.

The enclosures were similar to those for the farm survey, each envelope containing a questionnaire, a covering letter[26] and a stamped addressed letter.

5.15 Response to the Preliminary Survey

The questionnaire was posted on 27th April 1972 and by 29th May 407 returns had been made. Table 5.3 shows this analysis.

TABLE 5.3

Response Rates to the Preliminary Questionnaire

	Firms	Farms
Questionnaires sent	402	380
Questionnaires returned	205	202
Response rate	51%	53%
Number of male employees	184*	579

Note: *These are ex-agricultural workers and not total employees.

Of those making no reply at this date, a random sample of 20 firms and 20 farms was selected; a second questionnaire was sent to them with another covering letter.[27] The intention of the reminder was not to generate a larger population from which to select a sample,

26. See appendix 2.3.A,B.
27. See appendix 2.4.

but to determine the characteristics of those making no response. Only 4 firms replied to the reminder and these firms either indicated that they had no ex-agricultural workers or that they did not wish to participate in the survey. The reminder sent to farmers brought 9 replies, of which only 2 farmers employed any workers (8 workers) and one of these farmers did not wish to take part in the survey.

From this response it was concluded that non-responding employers, both industrial firms and farms, either

1. employed no labour which was eligible for inclusion in the survey.

or 2. were not prepared to allow their workers to be interviewed.

5.16 Details of Farms in the Survey

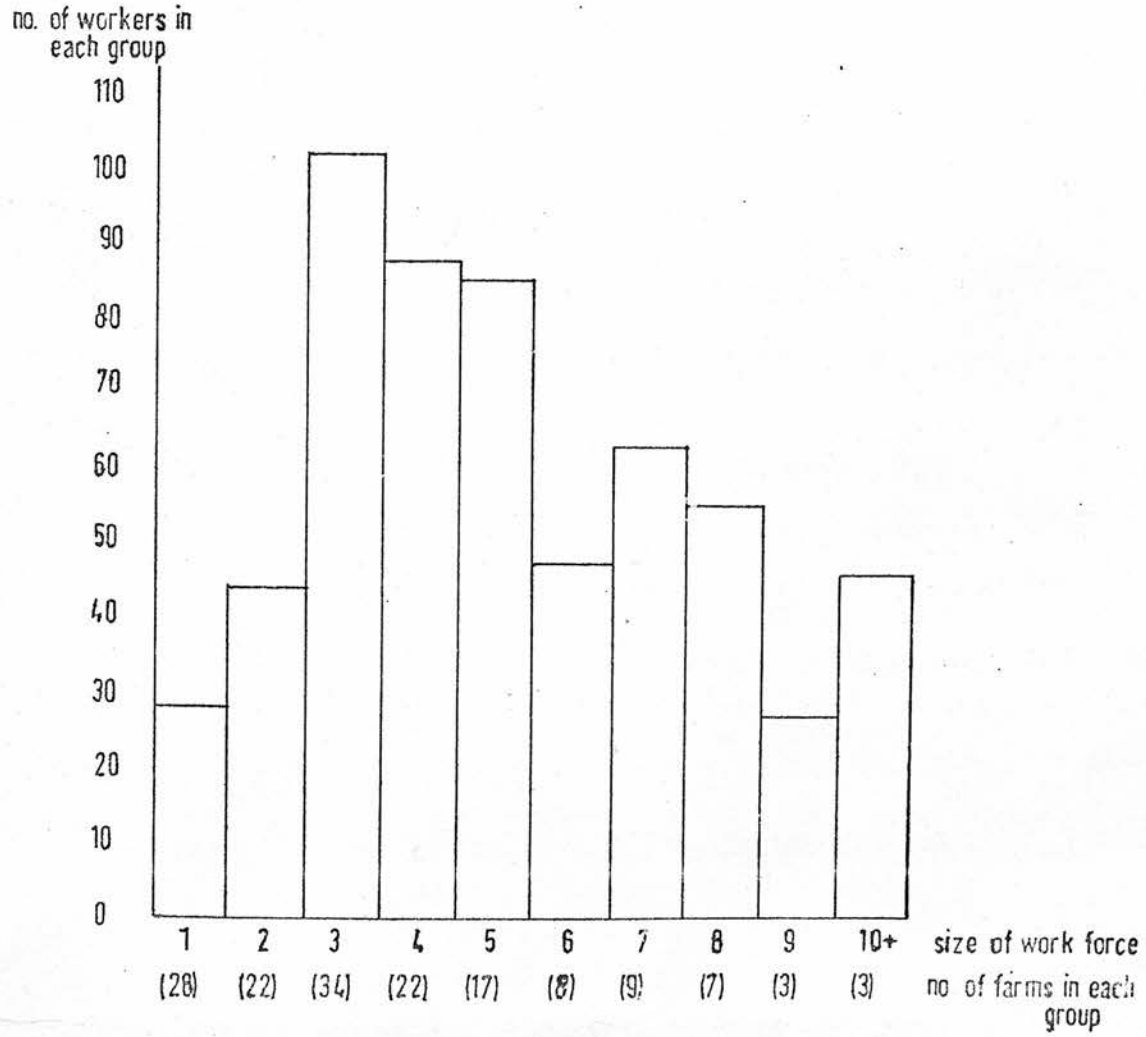
Introduction: The distribution of farms returning questionnaires is shown in the map in appendix 2.6, which also show the number of farms from which workers were selected for interview. Although there was no attempt to stratify the selection of workers by parish, the workers' farms are in fact well distributed throughout the county.[28]

28. Of the 202 returns included in the survey one was incomplete, two were returned because the farmer had gone away and two holdings were amalgamated on one form.

Number and Type of Employees: The following figures relate to 211 questionnaires returned (8 workers are included from replies to the reminders sent out). On the 211 farms there were 587 regular male employees. In fact 58 (27.5 per cent) of the farms employed no non-family workers. The size distribution of farms employing labour is shown below:

FIGURE 5.1

Distribution of Workers according to Size of Farm Work Force[29]



29. For the 3 farms with 10 or more workers, one had 10 workers and the other two 18 workers each.

This diagram shows that 275 (47 per cent) of the workers are employed on farms in the size group 3 to 5 workers.

Distribution of workers by occupational type is shown in Table 5.4.

TABLE 5.4

Distribution of Type of Worker

	Manager	Grieves	Stockmen	Dairymen	Shepherds
Total	18	64	66	36	13
Percentage	3.1	10.9	11.3	6.1	2.2

	Tractormen	General Worker	Other Workers*
Total	308	74	8
Percentage	52.5	12.6	1.4

*Includes lorry drivers, mechanics, pigmen and assistant managers.

In the 12 months preceding the survey 93 workers had left the farms and 87 workers had been recruited.

TABLE 5.5

Turnover of Agricultural Workers in 1971/72 (April-March)

No. of workers involved	1	2	3	4	5	6	Total no. of holdings
Workers Leaving (No. of holdings involved)	48	10	5	1	0	1	65
Workers Recruited (No. of holdings involved)	44	11	4	1	1	0	61

Of the 153 farmers employing labour, 123 (80 per cent) indicated that they were willing to allow their workers to take part in the survey, should the latter be agreeable to this. Table 5.6 shows the number of workers available for interview:

TABLE 5.6

Workers Available for Interview

	Grieve	Stockman	Dairyman	Shepherd
Total (382)	45	48	17	11
Percentage	12	12.5	4.4	2.9

	Tractorman	General Worker	Other Worker
Total	205	48	8
Percentage	53.5	12.5	2.1

These workers were arranged in columns according to type of job, each row identified by the code number of the farm to which the worker(s) belonged. It was from this list that workers were selected for interview.[30] When the selection process had been completed interview cards were made up for each farm from which an employee had been selected.[31]

To interview the 100 workers in the survey it was necessary to visit 66 farms. The distribution of the number of workers interviewed per farm is shown in Table 5.7.

30. The process of selection is illustrated by the use of grieves. The farms were ordered in the list according to their code number and each grieve given a number between 1 and 45 according to his position in the list. Grieves were then selected at random using Lindley and Miller's Cambridge Elementary Statistical Tables 1968, Table 8. Where several of one type of worker were employed on a farm, e.g. tractormen, then these men were ordered alphabetically for that farm and then given a number.

31. This card showed the name, address and telephone number of the farmer, the number, type and name of the employee(s) selected.

TABLE 5.7

Distribution of Workers Interviewed

No. of workers	1	2	3	4	5	6*	
No. of farms	43	17	3	2	0	1	66
Percent. of workers interviewed	43	34	9	8	0	6	100

*This farm employed 18 workers in total.

There was no weighting of the selection procedure so, when more than one worker was selected from a farm, it was because each worker had in fact been selected independently from his own occupational group. Reserve interviewees were also selected to safeguard against absentees, refusals and workers who had changed jobs.[32]

5.17 Details of Firms in the Survey

Introduction: The 209 firms making a reply to the questionnaire were distributed in the Department of Employment Exchange Areas as follows:

TABLE 5.8

Distribution of Employers Responding to Preliminary Questionnaire

Anstruther	Cowdenbeath	Cupar	St. Andrews	Dunfermline
7 (20)*	30 (57)	24 (52)	13 (24)	22 (31)
Inverkeithing	**Glenrothes**	**Kirkcaldy**	**Burntisland**	**Leven**
16 (36)	26 (57)	42 (68)	3 (7)	26 (50)

*Figures in brackets indicate the number of employers in each area.

32. The failure rate was in fact very low. All interviews started were completed, 3 agricultural workers and 4 ex-agricultural workers had to be substituted because the original choice was not available.

Of the 205 firms replying to the first questionnaire 53 sent back incomplete forms and 3 questionnaires were returned because the firm had moved. It was unfortunate that so many firms employing no ex-agricultural workers appeared to regard this as a reason for not giving details of recruiting and training methods.[33] First, details of all firms replying to the questionnaire are given; information is then provided for firms from which ex-agricultural workers were selected for interview.

The figures given by firms for the numbers of male production and clerical workers were added to give total male employees. The size distribution of the work-force is shown in Table 5.9.

33. Some firms enclosed with their returns an explanatory letter stating why they could not supply the necessary information or were unwilling to take part in the survey. Reasons listed included inadequate staff records or an inability to search through them; a dispersed work force; safety regulations at work; concern for the privacy of employees; and the fact that imminent redundancies were already unsettling the work-force making interviews inopportune.

TABLE 5.9

Size Distribution of Work Force[34]

No. of workers	1-10	11-24	25-49	50-99	100-199
Total no. of employers	18	41	31	29	16
%	12	27.3	20.7	19.3	10.7

No. of workers	200-299	300-399	400-499	500-749
Total no. of employers	3	3	2	3
%	2	2	1.3	2

No. of workers	750-999	100-1499	1500-1999	2000-2499
Total no. of employers	1	1	0	1
%	0.7	0.7	0	0.7

No. of workers	10,000 plus
No. of employers (Total)	1
%	0.7

From this table it will be noted that 90 per cent of the firms employed less than 200 workers. Firms were also asked to furnish details of their methods of recruitment and training of workers. Methods of recruitment are shown in Table 5.10.

34. Sizes used as per p. 206 of British Labour Statistics: Historical Abstract 1886-1968 H.M.S.O., 1971.

This table only includes 150 firms; 53 firms were excluded because they made incomplete returns; 6 firms had only female employees.

TABLE 5.10

Method of Recruitment

	Advertise in the local newspaper	Use D.E.P. Exchange	Use Private Agency	Personal Contacts
T	113	110	1	72
% *	72.5	70.5	0.6	46

	Employees' Personal Contacts	Notice Board Outside Works	Other Methods
T	75	9	12
%	48	5.7	7.7

T = Total

* Percentages relate to a total of 156 complete forms.

The use of advertisements and the local Employment Exchange are the main ways of recruiting new workers. The use made of personal contacts is also seen to be important, both the contacts of the employer and of his employees.

TABLE 5.11

Training Methods Used

	Day Release Classes	Industrial Training Boards	Firm's Own Schemes
Total	79	53	66
% *	50.5	34	42.5

	Other Schemes	No Training or Retraining Offered
Total	10	30
%	6.4	19.2

* Percentages relate to a total of 156 complete forms.

The mailed questionnaires showed that 125 ex-agricultural workers were in their first job away from farming and 59 in their second or subsequent job. These 184 ex-agricultural workers were

employed by 34 firms, of which 27 were willing to allow their workers to take part in the survey. This left a total of 150 ex-agricultural workers available for interview. Firms taking part in the main survey were put into one of six groups for the purpose of selecting 100 interviewees.[35]

TABLE 5.12

Classification by Industrial Group

	Forestry, Food and Drink	Chemicals, Mech. Engineering and Utilities	Construction and Transport
No. of workers	24	24	14
%	16	16	9.3

	Distributive Trades, Misc. Services	Public Administration I	Public Administration II
No. of workers	23	43	22
%	15.3	28.6	14.7

Note: Public Administration is split into two groups; not because of its size but because of one local authority's large group of ex-agricultural workers; it was decided to treat this authority as a separate sub-group.

The firms were arranged within their group according to their code number, and the workers ordered in each firm alphabetically. A random selection was then made from within each group; workers selected were identified and an interview card, similar to that for farmers, was made up for each firm. Workers were selected from all

35. These groups are amalgamations of 'Industrial Order Groups'.

27 firms indicating their willingness to take part in the survey and the distribution of workers interviewed per firm is shown below:

TABLE 5.13

Distribution of Ex-Agricultural Workers Interviewed

No. of Workers	1	2	3	4	5	6	9	12	14
No. of Firms	9	4	3	4	1	3	1	1	1

5.18 Conduct of the Survey

All farmers with workers selected for interview were sent a post card showing the names of the workers and the proposed date and time of interview; these were sent out approximately one week before the interview date. Appointments were made with firms by telephone. All farm interviews took place during working hours and most of the ex-agricultural workers were also interviewed at work. Some firms required several visits before all the interviews were completed.[36]

5.19 Processing of the Data

The questionnaire was pre-coded but required some manual coding of occupational and industrial groups, and geographical mobility before punching up the data.[37] Analysis was carried out using the programme 'Statistical Package for the Social Sciences'.[38]

36. Interviews were started on 31st May, 1972 and completed by 5th July.

37. Once the cards had been punched a listing was obtained and this was checked against the actual questionnaires; then a preliminary run was made on the computer to obtain one-way frequency tables for all the variables. These tables were also cross-checked to obtain internal consistency in the results. This detailed checking greatly reduced possible errors in data handling.

38. Nie, N.H. et al. Statistical Package for Social Sciences, 1970; a programme offering a great variety of statistical procedures and data modification routines.

CHAPTER 6

INTER-INDUSTRIAL MOBILITY

6.01 Introduction

The problems associated with the definition and measurement of occupational mobility were outlined and discussed in chapter 3. Other studies analysing these aspects of mobility with regard to agricultural workers were mentioned in chapter 4. Therefore it is proposed in this introduction to do no more than outline the main points upon which this survey might cast some light.

1. Throughout the discussion it has been stressed that the actual study of gross flows of workers between agriculture and other industries is of crucial importance. It is not sufficient to know the net change in the number of agricultural employees, since this gives no indication of the stability of the work force, or the recruitment and wastage rates. Further, it is important to examine these gross flows in terms of the age, skills, education, pay and motivation of the mobile workers. Only by doing this can an adequate picture of the present agricultural work force and probable future trends be developed. These are factors all too often forgotten in studies of the agricultural labour force.[1] Gross occupational and

1. Gallaway, L. E. Mobility of Hired Agricultural Labor; 1957-60, J. Fm. Econ. 49, 1967, p. 32 ff;
Hathaway, D. E. and Perkins, P. B. Farm Labor Mobility, Migration and Income Distribution, Amer. J. agric. Econ. 50, 1968, p. 342 ff;
Ministry of Labour Mobility between Industries and Jobs, Gazette, July, 1966, p. 379 ff.
Department of Employment Approximate Estimates of the Flows of Employees between Industries, Gazette 78, April, 1970, p. 303 ff.

industrial flows were measured in this survey and their importance will be shown in this and later chapters.

2. It is suggested that agricultural labour accepts a low wage because it has a low supply price.[2] One of the reasons given for this is the non-monetary benefits of a farm job, i.e. such factors as working outside, responsibility and the opportunity to live in the country. It might be expected then, that the factors affecting job choice would differ between those who had left agriculture and those remaining.

3. It has been shown that the longer a worker remains in agriculture the more difficult he will find it to transfer satisfactorily to a non-farm job.[3] This is a combination of age and the barriers to movement out of agriculture associated with the degree of transferability of skills. Also Gallaway discovered that workers in the age group 40 years and over tended to make mainly involuntary moves. It might be expected then, that this survey would show a similar pattern of decreasing mobility with age, or at least that the movement by older workers might not be to their advantage.

4. Neo-classical theory envisages mobility as a response to changes in wage rates and therefore it is assumed that improved wages are gained by those who leave agriculture.[4] The previous discussion of the theory showed how widespread is this belief. Equally

2. e.g. Bellerby, J. R. Agriculture and Industry: Relative Income, 1956, chapter 3.
3. Gallaway op cit.
4. See the discussion of this in chapters 2 and 4, also Hathaway and Perkins op. cit.

it was shown that there were cogent reasons for not accepting this theory without qualification. Gallaway's regression analysis[5] of workers who left agriculture and those who stayed suggested that many workers were in fact 'maximisers' in monetary terms when they remained within agriculture and not when they left. It will be possible to compare the change in money wages of workers in the survey to help test these points.

It is proposed to first outline the gross occupational flows of workers by means of a table cross-tabulating present job with the last job. The main part of the discussion will then take place under two heads:-

1. Agricultural Workers
2. Ex-agricultural Workers

Within these sections there will be sub-groups according to whether:-

a) the worker entered that sub-group when changing his job (i.e. a farm worker who left agriculture or a non-farm worker who entered agriculture); or

b) the worker moved within the particular section (i.e. a farm worker who moved to another farm or an ex-farm worker who changed jobs outside agriculture).

It is proposed first to describe the two subsections of the group of present agricultural workers in terms of actual mobility, factors affecting job choice, duration of present job, reason for leaving last job, change in pay, employment status, attachment to job and previous job history. A similar procedure will be adopted for the group of ex-agricultural workers. Finally comparisons will be made between the two groups of workers.

5. Op. cit. p. 35 ff.

6.02 Gross Occupational Flows

Details of present job and the last two jobs were obtained from all workers taking part in the survey.[6] These were first classified using the code numbers given in the "Summary of Occupation Orders and Unit Groups".[7] Farming occupations were further classified into farmer, manager, grieve, foreman, stockman, dairyman, shepherd, tractorman, general worker, pigman and 'other workers'. This was done because it was felt that there may be differences in the mobility of workers according to the type of job they had on the farm. It should be noted that no farmers were interviewed amongst the agricultural workers, but some of the ex-agricultural workers interviewed had been farmers.

Because the number of occupational order groups was large in relation to the total number of workers in the survey, it was decided to recode these orders into a smaller number by gathering together groups with similar occupational requirements. This was done by using the most recent attempt to provide a comprehensive definition of occupational groups.[8] By this means occupations were recoded into 10 main groups as follows:-

6. Appendix 2.1, Q. 1A, 11A,B.
7. Classification of Occupations, Office of Population Census and Surveys, H.M.S.O., 1970.
8. Department of Employment Classification of Occupations and Directory of Occupational Titles, H.M.S.O., 1972., 3 volumes.

1. Groundstaff, foresters and fishermen,
2. Mining and Construction Work,
3. Engineering and Allied Trades,
4. Material Manufacturing and Processing,
5. Transport,
6. Plant Operators N.E.C.,
7. Miscellaneous Labouring Jobs,
8. Salesmen of all types,
9. Service Industries,
10. Professional, Managerial and Clerical.

The Armed Services were kept as a separate group.

This table was split into four sectors according to whether the mobility was between the agricultural and non-agricultural sectors, or within these respective sectors. Each sector of the Table is presented before the respective sections of the discussion. It will be seen that 73 workers remained within agriculture and that there were 27 new entrants to the industry of which eleven had never worked full-time before. Of the ex-agricultural workers 57 had left agriculture at their last change of job, and the remainder had made at least one job change since leaving agriculture.

Even using these fairly broad occupational groupings, there is seen to be a high degree of occupational mobility, even amongst workers who remained within one of the two main sectors. This was particularly so for ex-agricultural workers, where only 16 workers (37 per cent) remained in the same occupational group after their last change of job.[9]

9. A comment by D. J. Robertson is of particular note here: "The need to change occupation when changing a job is not of special importance for the unskilled or semi-skilled, since such training as they receive is usually given in the form of internal training at each new place of employment". A Market for Labour, Hobart Paper no. 12, 1961, p.25.

Having shown the gross flows of workers between jobs in outline, it is now possible to discuss in detail the significance of these movements.

AGRICULTURAL WORKERS

A. Workers Who Entered Agriculture at Last Job Change

TABLE 6.1

Occupational Mobility of Workers Who Entered Agriculture

Actual Mobility

Present Job		Last Job: 0. No Previous Job	1. Groundstaff, Forestry and Fisheries	2. Mining & Construction Work	3. Engineering and Allied Trades	4. Material Processing and Manufacturing	5. Transport	7. Miscellaneous Labouring Jobs	9. Service Industries	Row Totals
3.	Engineering and allied trades				1					1
15.	Transport						1			1
225.	Farm Manager	1								1
227.	Stockman	1		1					1	3
228.	Dairyman	1	1							2
229.	Shepherd			1						1
230.	Horse and Tractorman	7		3		1		1		12
231.	General Worker	1	1	2						4
233.	Foreman				1					1
234.	Other						1			1
	Column Totals	11	2	7	2	1	2	1	1	27

(Note: In the four tables showing occupational mobility numbers set against occupational title refer to code no. in data file.)

From Table 6.1 it will be observed that eleven of the new entrants to agriculture have come straight from either school or college to their present job. Two of the entrants had been to college, one of them gaining the Scottish Diploma in Agriculture at the East of Scotland College of Agriculture and the other a diploma in dairying at Cupar. The biggest inflow of workers from another occupational group had come from the construction and mining industries, with seven out of the sixteen new entrants who had worked before coming from this group. Five of these men had been involved in the building trade and one of them still spent most of his time engaged in farm maintenance work. (Only at peak periods of the year did he assist in the farm work, and he was still paid at building trade rates). Similarly, the fitter and the lorry driver were paid at rates ruling in their particular trades.

6.03 Factors Affecting Job Choice

All workers were asked what had made them choose their present job,[10] and given a wide choice from which they could select as many reasons as they wished.

10. Appendix 2.1, Q. 4.

TABLE 6.2

Reasons for Choosing Present Job[11]

	Reasons				
	No Special Reason	Good Pay	Hours of Work	Near Home	Friends & Relations There
No. of Workers (27)	13	1	1	1	4
% of Total	48	4	4	4	15

	Only Job Available	Training Offered	Other Reasons
No. of Workers	3	2	11
% of Total	11	7	41

Two columns are of note in Table 6.2. The first is the large number of workers who could give no special reason for choosing their present job. That is, a large number of workers appear to have chosen their present job with little in the way of evaluation of 'net advantage' as traditional theory would suggest. This is not to say that they had acted irrationally in making their job choice.[12] The second major column to note is the 'other' column. Under this heading, workers listed such reasons as a lighter job, a chance to develop farming policy, provision of housing, an opportunity to build up the dairy herd and, particularly amongst the new entrants to the work force, a good farm upon which to gain experience.

11. Because this question was open ended the columns of the table are independent of each other, i.e. each is expressed as a percentage of the total (27), and these column percentages do not sum up to 100.0 per cent since a worker may appear in more than one of the columns. This caveat applies to tables showing factors affecting job choice wherever they occur in this chapter.

12. Bluestone, A. Job Finding and the Theory of Job Choice, Monthly Lab. R., 1955, p. 1139 ff; Jefferys, M. Mobility in the Labour Market, 1954.

Workers had previously been asked to choose two factors which they considered important in any job.[13] This choice was made from a list of ten alternatives and the ranking given to those chosen is shown in Table 6.3.

TABLE 6.3

Factors Affecting Job Choice

	Factors			
	Interesting & Varied Work	High Wages	Opportunity for Overtime	Good Relations with Employers
1st choice	7	2	1	10
2nd choice	3	2	-	7
Col. totals	10	4	1	17
Col. %	19	7	4	31

	Modern Equipment & Good Conditions	Secure Job & Steady Income
1st choice	3	4
2nd choice	8	7
Col. totals	11	11
Col. %	20	20

Table 6.3 shows the relative unimportance of high wages and overtime amongst the factors which affect the choice of jobs. Workers are seen to value very highly a good relationship with the employer. Security of job and regular income are also seen to be important. The variety of tasks within a job also ranks quite highly.

6.04 Time in the Present Job and Change in Pay

One worker had been in his present job for less than three months, six workers had been in their present job for three months to a year, ten for a period of one to five years, and there were

13. Appendix 2.1, Q.3A.

five workers in each of the categories five to ten years and ten years and over.

If the eleven new entrants are excluded from the statistics, it is seen that seven workers made a gain by entering agriculture, a further seven made a loss and two workers remained at about the same wage. The improvement in wages was as follows:-

TABLE 6.4

The Size of Changes in Wages for Workers Entering Agriculture

Wage Gains

Up to £1 better off per week	£1-1.99 better off per week	£2-2.99 better off per week
1	1	2

£4-4.99 better off per week	More than £5 better off per week
1	2

The distribution of losses made in weekly wages is shown below:-

Wage Reductions

More than £5 less per week	£3-3.99 less per week	£2-2.99 less per week	Less than £1 reduction
2	2	2	1

It should be noted that these changes refer to the approximate value of take-home cash wage, including any normal overtime payments, when the worker first started his present job.[14]

Such small cell totals limit the weight that can be attached to observations about these results. It is apparent that certain workers have gained significant increases in wages by moving into agriculture. The largest increase was gained by a man who left

14. Appendix 2.1, Q. 9A,B.

the fishing industry, where he found that his earnings fluctuated considerably.

It is equally apparent that some workers have suffered considerable reductions in money wages by entering agriculture. A number of these came from construction work where long hours of overtime had boosted weekly earnings. One worker had been forced by injury to give up a highly paid job driving earth-moving machinery.

The workers gave the following reasons for leaving their last job:-

TABLE 6.5

Reasons Given for Leaving Last Job

	Reasons			
	Redundant	Dismissed	Wanted a Better Paid Job	Disagreed with Employer
No.	2	1	3	1
%	13	6	19	6

	Family Reasons	Other	Total
No.	1	8	16
%	6	50	100

'Other reasons' given were predominantly related to working conditions and, in particular, the desire to work out-of-doors rather than in a factory atmosphere.

6.05 Previous Job History

Of the 16 workers who moved from other jobs, 13 had been in their last job for more than 5 years, a relatively high stability of employment. None of them had been in their last job for less than

18 months. Their participation in the work force had been regular, ten of them had moved straight to their next job. One worker was unemployed for longer than a year whilst nursing his wife. Of the remaining five workers, two were unemployed for less than a month, and the remainder for periods of less than six months. The reason given for this was inability to find work.

Of the 16 workers who had entered agriculture, eight had been employed directly in agriculture immediately prior to their last job, one had done estate work. Nine of the workers had gone into agriculture straight from school.

6.06 Job Satisfaction

This group of workers exhibited a high degree of job satisfaction. All workers were asked how much they liked their job when all things were taken into account.[15] Table 6.6 shows the results obtained.

TABLE 6.6

Level of Job Satisfaction

	Very Much	Quite a Lot	Indifferent	Not Very Much
No.	11	14	1	1
%	41.0	52.0	3.5	3.5

Only two of the workers showed a high degree of job dissatisfaction. This is supported by the fact that only two of the 27 workers said that they had actively searched for another job in the last year, or since starting their present job if this were shorter. Workers who had looked for another job gave their reasons[16] as a desire for

15. Appendix 2.1, Q.7.

16. Workers could nominate any number of reasons from the lists in appendix 2.1 Q. 8B and C.

better conditions, more security and the opportunity for promotion.[17]

The main reason for not seeking another job was given as happiness with the present job; 21 workers gave this as a reason. Two other prominent reasons were the desire to remain in the area and to continue in an open-air job. One worker considered that there was no chance of a better job for him.

B. Workers Who Moved Within Agriculture at Last Job Change

TABLE 6.7

Occupational Mobility of Workers Who Moved Within Agriculture

Actual Mobility

Present Job \ Last Job	226. Grieve	227. Stockman	228. Dairyman	229. Shepherd	230. Horse and Tractorman	231. General Worker	232. Pigman	233. Foreman	Row Total
226. Grieve	7				9	1		2	19
227. Stockman	2	4		2	2	1	1	1	13
228. Dairyman		1	5		1				7
229. Shepherd	1			3	1				5
230. Horse and Tractorman	1		1		17	4			23
231. General Worker					1	3			4
232. Pigman							1		1
233. Foreman					1				1
Column Totals	11	5	6	5	32	9	2	3	73

17. Appendix 2.1, Q.8.

Even amongst the 74 workers who remained within agriculture, there was a high degree of occupational change,[18] with the exception of grieves and stockmen. Of the 27 workers in these categories, 19 remained within the same occupational group. A further six workers changed from grieve to stockman or vice versa. Once these positions are attained, then, there is a considerable investment in acquired skills which is not readily set aside.

18. A point of some importance is the change which is apparently taking place in the occupational roles of certain types of workers. At one time a horseman or tractorman concerned himself largely with farming operations using his horse(s) or tractor, and he would have several general workers working with him. The horse or tractorman worked slightly longer hours since he had either stable or garage work to do, and his rates of pay were adjusted accordingly. The general worker usually had no responsibility for the maintenance of either livestock or machinery, and his work lay in general maintenance operations around the farm, hedging, ditching, singling, etc. Two forces have operated to change this pattern. One is the growing versatility of the tractor which enables its driver to carry out from its seat many of the operations formerly done by the general worker. The second force is the reduction in farm staff which has meant that many workers now have to perform a wider range of duties. This has meant that a number of workers, classified as general workers by their employers and selected for interview as such in the survey, were in fact carrying out work routines not any different from tractormen; they were paid accordingly (see Agricultural Manpower in England and Wales, E.D.C. for the Agricultural Industry, 1972, p.7). Also some of these workers were acting as stockmen.

    A further reflection of the reduction in the size of the work force is the fact that two grieves were interviewed on farms where they were the sole employees. That is, a job formerly associated with the day to day business of running the farm and ordering the work of other employees, is now being used by some farmers as a means of attracting or retaining good workers by the offer of the prestige and rewards of position which has lost some of its original purpose.

Tractormen contribute the biggest group of workers and act as a reservoir from which other categories of workers are recruited within the industry. It is the major source of new grieves (almost half the total number of grieves interviewed were formerly tractormen) and also acts as a contributer to livestock husbandry. It draws recruits from those formerly general workers.

With the reduction in the size of the farm work force, the employment of foremen is now less common. Only one was encountered in the survey, and there was no grieve appointed over him.

6.07 Factors Affecting Job Choice

They gave the following reasons for choosing their new jobs:

TABLE 6.8

Reasons for Choosing Present Job

	Reasons					
	No Special Reason	Good Pay	Hours of Work	Near Home	Friends etc.	Only Job Available
Total	28	11	4	5	3	12
%	38	15	5	7	4	16

	Health	Responsibility	Other
Total	1	2	34
%	1	3	47

As with the previous group (Table 6.2) there was a large number of workers who could not cite a specific reason for choosing their present job; 28 (38 per cent) compared with 13 (48 per cent) for new entrants. Support for the suggestion that many workers do not carefully evaluate a job before taking it.

Even although more workers chose their job because of higher pay (14.9 per cent), a bigger group (16.2 per cent) cited this job as the only one available to them. This response supports the idea that workers often face a restricted choice of jobs. 'Other Reasons' included the opportunities to shape the expansion of enterprises on the farm. That is farm workers are seen to show an interest in the practical management of the enterprises. Several of the workers chose their present job because they were pressed to do so by their present employer, who approached them.

When given a list of job characteristics and asked to rank them, the following results were obtained:-

TABLE 6.9

Factors Affecting Job Choice

	Factors			
	Interesting & Varied Work	High Wages	Overtime	Good Relationship with Employer
1st choice	14	4	-	28
2nd choice	5	4	2	16
Col. Totals	19	8	2	44
Col. %	13	5	1	30.0

	Modern Equipment & Good Conditions	Secure Job & Steady Income	Close to Home & Good Hours
1st choice	8	15	2
2nd choice	10	25	4
Col. Totals	18	40	6
Col. %	12	27	4

	House	No Choice
1st choice	-	2
2nd choice	1	6
Col. Totals	1	8
Col. %	1	5

Two factors are seen to be of outstanding importance to the farm worker; his relationship with his employer and the security of his job and income. No other job characteristic compared with them in importance, and high wages and the opportunity for overtime were amongst the least important. A varied and interesting work routine and the use of modern equipment were also prominent factors in job choice.

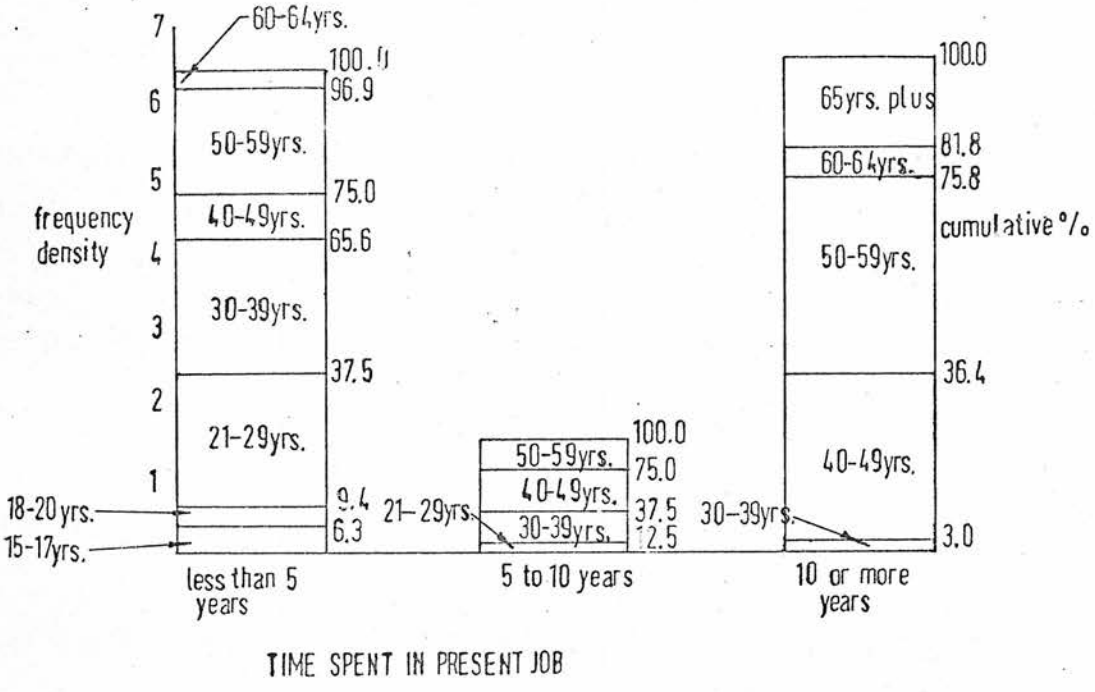
6.08 Time in Present Job and Change in Pay

Analysis of the statistics for length of time in the present job reveals an interesting distribution. Tenure of jobs was concentrated in two major groups. Of the 74 workers, 32 had held their job for less than five years and 33 had been in their present job for more than ten years. This feature appears to be age-related, since 65.6 per cent of the workers who had been in their present job for less than five years were aged under 40 years. Conversely, all but one of the workers who had been in their present job for more than ten years were aged over 40 years. This finding is in accordance with other survey data, indicating that mobility between jobs tends to decline with age.[19] The cross-tabulation of age and time in the present job is shown in Fig. 6.1.

19. Jones, R. M. A Case Study in Labour Mobility, Manchester Sch. econ. soc. Stud. 37, 1969 p. 169 ff; Ministry of Labour op. cit. 1966; Jefferys op. cit., p. 61. See also sections 4.04, 4.08, 6.13 and 6.18.

FIGURE 6.1

Frequency Density Columns for Time in Present Job, Divided Proportionally According to Age of Workers



From Fig. 6.1 it is clear that mobility decreases with age. Analysis of the table upon which this diagram was based indicated a very close relationship between mobility and age.[20] Possibly this bimodal distribution indicates younger workers moving from farm to farm gaining experience before settling down under the influence of such factors as seniority, age, family responsibilities and attachments in the community.

The change in pay with last change in job revealed support for the suggestion[21] that workers changing jobs within agriculture

20. A summary of all statistical tests in chapters 6 to 9, together with the results is presented in appendix 5.

21. Gallaway op. cit.

are more likely to obtain wage increases than those just leaving the industry. Of the 73 workers, 48 (66 per cent) gained increases at their last move and only eight (11 per cent) suffered a reduction in wages. The remaining 17 workers (23 per cent) had no appreciable change in wages. Compare these figures with those for workers who entered agriculture, where seven made wage gains and seven lost money (Table 6.4). The scale of the change in wages is shown below:

FIGURE 6.2

Change in Wages for Workers Remaining Within Agriculture

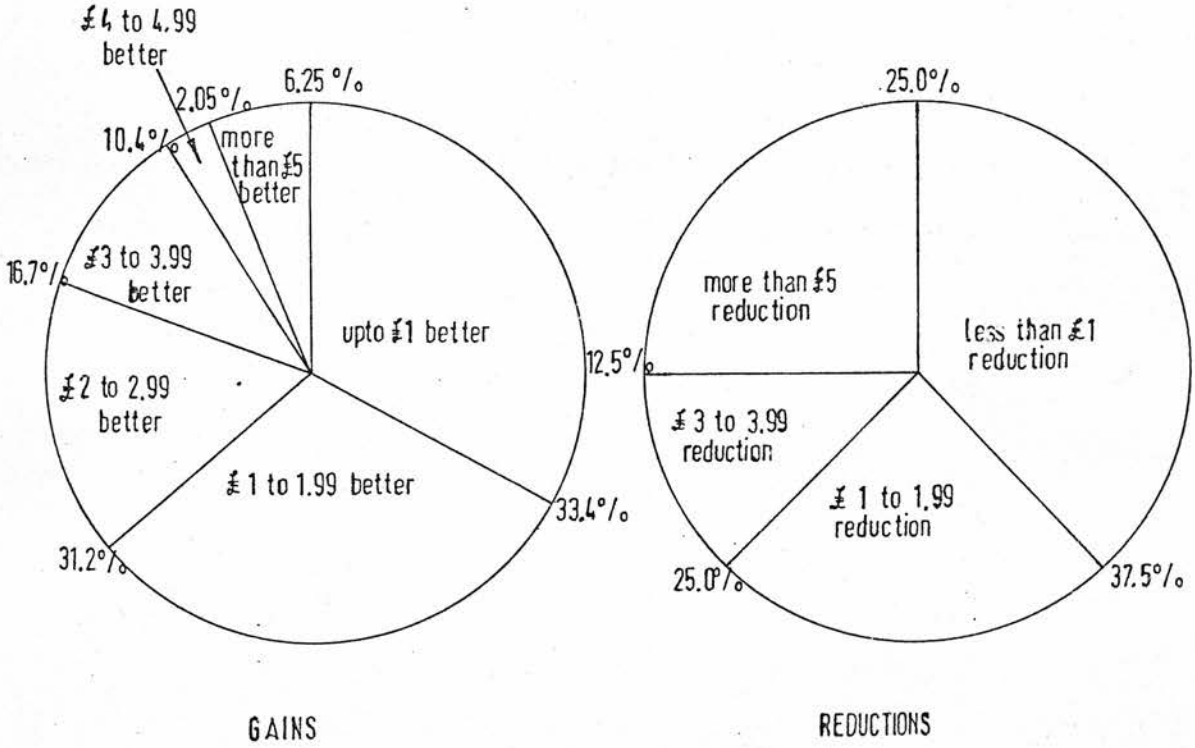


TABLE 6.10

Size of Changes in Wages for Workers Remaining Within Agriculture

Wage Gains

	Up to £1 Better	£1-1.99	£2-2.99	£3-3.99	£4-4.99	More than £5 Better
Total	16	15	8	5	1	3
%	33.4	31.2	16.7	10.4	2.05	6.25
Cum. %	33.4	64.6	81.3	91.7	93.75	100

Wage Reductions

	Less than £1 Reduction	£1-1.99	£3-3.99	More than £5 Reduction
Total	3	2	1	2
%	37.5	62.5	75	100

(Note: When comparing diagrams the low numbers upon which the one showing wage reductions is based should be borne in mind)

Table 6.10 shows that the majority of gains were less than £2, only 8.3 per cent had gained more than £4. Against this must be set the facts that search and removal expenses were considerably reduced by the use of tied housing and the provision of farm transport for the removal. Also that £2 is a significant gain in a wage which was relatively low. The two workers who suffered losses of more than £5 were in fact men past retirement age who moved from posts of grieve to act as part-time stockmen.

6.09 Reasons for Leaving Last Job

The following are the reasons given for leaving their last Job:-

TABLE 6.11

Reasons for Leaving Last Job

	Reasons				
	Redundant	Wanted Better Pay	Family Reasons	Disagreed with Employer	Was Promoted
Total	9	9	2	6	9
%	12.3	12.3	2.7	8.2	12.3
		Didn't Like It		Other Reasons	
Total		4		34	73
%		5.5		46.5	100.0

'Other reasons' assume importance in Table 6.11. These included health reasons, a desire to be nearer schools or shopping facilities, unsatisfactory housing, and to take up a place at college (see Tables 10.2 and 10.3). Some workers simply wanted a change of job, and also there were the two men who retired from positions of grieve to be kept on doing other jobs. Higher wages were mentioned by nine workers, and a further nine moved to gain promotion, which presumably brought with it a pay rise. Even so, reasons which were overtly connected with monetary gain formed only a small proportion of the total. Workers are seen to have moved for a great variety of reasons, many of them not even strictly work related.

6.10 Previous Job History

Like the previous group, workers showed a stability in job holding and a very high level of participation in the labour force. Sixty-eight (93 per cent) of the workers moved straight from their

last job to the present job. Of the five workers who were unemployed, none were out of work for longer than seven months. The three workers unemployed for longer than a month were unable to find work.

Whilst these workers had remained within agriculture in their last job change, 18 (24.6 per cent) had entered or re-entered the industry immediately before that. Of these workers nine had entered the work force for the first time. The rest had come from various sectors, of which construction was the major contributor. Of the remaining 55 workers a further ten had had a job outside agriculture at some time in the past. A point of some significance is the fact that 65 (89 per cent) of these workers had gone straight from school into agriculture. This fact indicates the importance of recruiting suitable candidates for agriculture straight from school. This may seem a statement of the obvious but often there is no active recruitment policy and agriculture, like a number of other industries, remains as one of the places of last resort for school leavers.[22]

6.11 Job Satisfaction

As with those who had entered agriculture a very high level of job satisfaction was indicated, and this is shown below:-

TABLE 6.12

Level of Job Satisfaction

	Job Satisfaction			
	Very Much	Quite a Lot	Indifferent	Not Very Much
Total	25	39	8	1
%	34.2	53.5	11.0	1.3

22. Carter, M. Into Work, 1961

This response is supported by the fact that only four of the 73 workers had made an attempt in the previous year to find another job. Reasons given by these four workers for their job search were insecurity, the desire for better pay and for a change of job. The overwhelming reason for remaining in the present job was contentment (58, or 79.5 per cent of total). Another 14 workers thought that they had no chance of a better job, and three wanted to remain in the area.

EX-AGRICULTURAL WORKERS

A. Workers Who Left Agriculture at Last Job Change

TABLE 6.13

Occupational Mobility of Workers Who Left Agriculture

Last Job

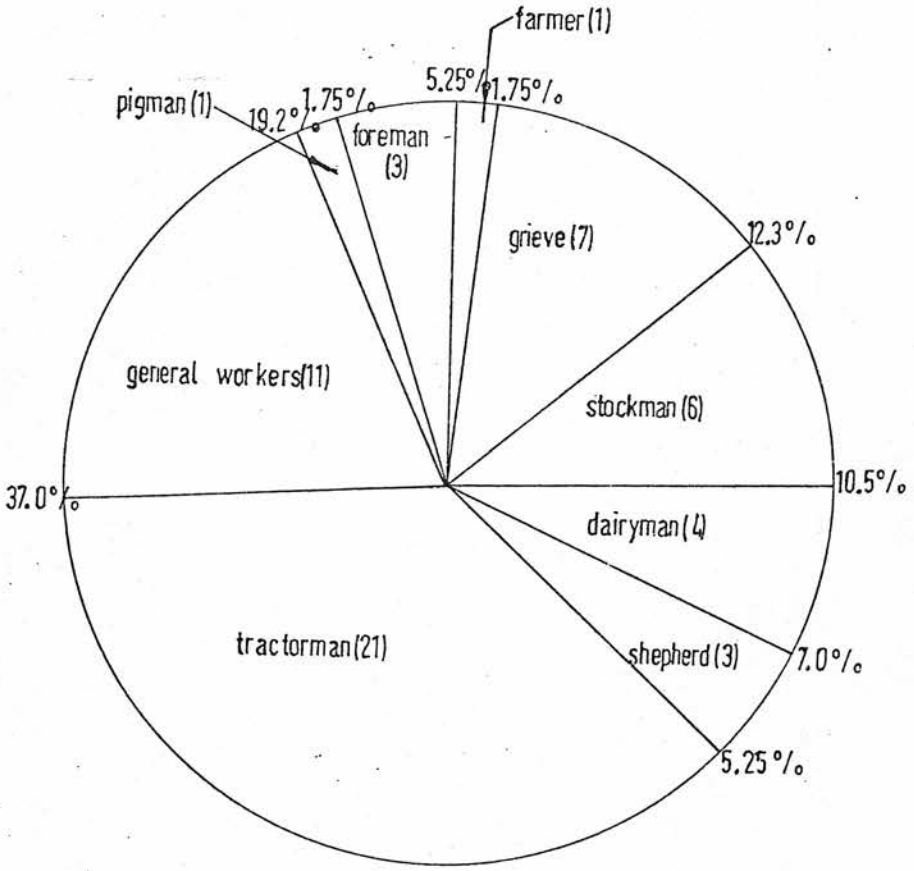
Present Job

	224. Farmer	226. Grieve	227. Stockman	228. Dairyman	229. Shepherd	230. Horse and Tractorman	231. General Worker	232. Pigman	233. Foreman	Row Total
1. Groundstaff, Forestry and Fisheries		2	2	1	2	7	4		1	19
3. Engineering and allied trades							1			1
4. Material Processing and Manufacturing		1		1		4	1			7
5. Transport	1		1			1		1		4
6. Plant Operators						1				1
7. Miscellaneous Jobs (Labouring)		3	3	2	1	6	4		2	21
8. Selling		1				2				3
10. Professional, Managerial and Clerical							1			1
Column Total	1	7	6	4	3	21	11	1	3	57

Of the 100 ex-agricultural workers interviewed, 57 had left agriculture at their last change of jobs. The distribution of jobs which they left in agriculture is best set out in diagrammatic form:

FIGURE 6.3

Distribution of Last Job for Workers Who Left Agriculture



(Note: Figure ( ) indicates number of workers in that category; figures on circumference indicate percentage).

The groups of tractormen and general workers were the major contributors to the outflow of workers from the industry, but considerable losses at the supervisory level and on the animal husbandry side should not be overlooked. Of the total of 18 grieves recorded as changing jobs in the survey, seven left farming altogether. Of the eleven stockmen who changed jobs, six left the industry. That is, these were men with specific agricultural skills which were not directly transferable to other occupations.

Two occupational groups have gained most from workers who left agriculture; i.e. groundstaff and forestry, and miscellaneous labouring jobs. There was a particular movement into general park maintenance and grounds staff work with local corporations. This group of occupations absorbed 19 workers. Miscellaneous labouring jobs included men working on the roads, yardsmen, and manual work in various depots. There were 21 workers in this group. Between them these two groups absorbed 70.2 per cent of the workers leaving agriculture. Workers becoming salesmen were involved in either farm implements or agricultural produce.

6.12 Factors Affecting Job Choice

These workers gave the following reasons for choosing their present job:-

TABLE 6.14

Reason for Choosing Present Job

	Reasons			
	No Special Reason	Health	Chance of Overtime	Good Pay
Total	17	5	1	6
%	29.8	8.8	1.8	10.5
	Hours of Work	Near Home	Friends, Relatives Working There	
Total	3	3	2	
%	5.3	5.3	3.5	
	Only Job Available	Family Reasons	Responsibility	
Total	15	1	2	
%	26.3	1.8	3.5	
	Other			
Total	23			
%	40.4			

As with the previous two subgroups of workers (Tables 6.2 and 6.8), there is a large proportion, almost 30 per cent in this case, who could give no special reason for choosing their present job. A further 15 workers (26.3 per cent) indicated that they had no other choice available. Only six of the workers (10.5 per cent) chose their present job because of 'good pay'. This fact lends little support to the claim that the predominant reason why workers left agriculture was to gain higher pay. Whilst only five workers left for specific health reasons, a number of workers listed under 'Other Reasons' the need to seek for a lighter job because of deteriorating health. This was particularly so for workers who had

formerly held positions of heavy physical and mental stress such as grieve or stockmen. Other reasons given were the chance of promotion, a more secure job, the chance of a croft with the job (Forestry Commission workers), and an opportunity to pursue an interest in machinery.

Once more monetary factors governing the choice of the present job have not featured prominently. Indeed, the two most important single reasons for choosing the present job were 'no alternative job' and 'no special reason'.

The reasons given for choosing the present job may be compared with the ranking given to important factors in job choice as shown in Table 6.15.

TABLE 6.15

Factors Affecting Job Choice

	Factors			
	Interesting and Varied Work	High Wages	Overtime	Good Relationship with Employer
1st choice	12	6	2	7
2nd choice	8	3	3	10
Col. totals	20	9	5	17
%	17.5	7.9	4.4	14.9

	Modern Equipment & Good Conditions	Secure Job and Steady Income
1st choice	7	17
2nd choice	6	15
Col. totals	13	32
%	11.5	28

	Close to Home: Good Hours	No Choice
1st choice	3	3
2nd choice	6	6
Col. totals	9	9
%	7.9	7.9

Once again the workers selected 'security of job and steady income' as being more important than high wages and overtime. Although at 12.3 per cent of the total, these last two factors assume their biggest proportion of the three subgroups of workers so far analysed. There was still a desire for interesting and varied work, with 17.5 per cent of the workers nominating this. The importance of the working relationship with the employer was no longer as important as before. This change reflects the fact that the worker was now probably part of a relatively much larger work force. Therefore he did not know his employer personally, or may not, in a sense, have one to identify with if he was working for a local authority.

6.13 Time Spent in Present Job and Change in Pay

Analysis of time spent in the present job revealed that 54 per cent had been with their present employer for more than five years. Of these 31 workers, 23 (72 per cent) were aged 40 years and over. This distribution is a preliminary indication that mobility may decline with age for this group too,[23] and is in accordance with the findings of other surveys.[24] The cross-tabulation of age by time in present job is set out in Figure 6.4 overleaf. It reveals certain important differences to those for agricultural workers, with a high degree of mobility amongst older workers. The bimodal distribution is not present and, in spite of the fact that 54 per cent of the workers have been in their present job for more than five years, the distribution is skewed to the left.

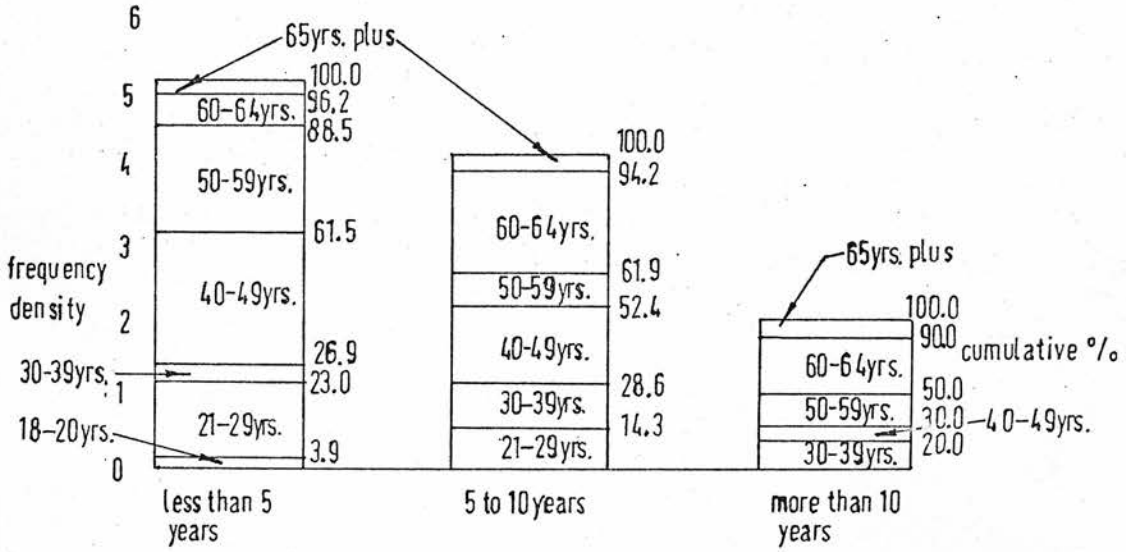
23. See Fig. 6.1 (section 6.08).

24. Jones op. cit; Ministry of Labour op. cit., 1966; Jefferys op. cit.

Workers holding their present job for less than five years were the largest single group accounting for 46 per cent of the total, and 73 per cent of these workers were aged over 40 years. There was an apparent mobility amongst workers of an older age group not found in agriculture. The suggested reasons for this mobility are discussed in the relevant section below.[25]

FIGURE 6.4

Frequency Density Columns for Time in Present Job, Divided Proportionally According to Age of Workers



Analysis by chi-squared test, although not conclusive, gave support to the suggestion that mobility may not decline with age. The null-hypothesis was that there was no difference between the age groups in terms of time spent in the present job.

The record of wage changes gave further support to the suggestion that many workers will make the best gains, on average, by remaining with agriculture. Of the 57 workers, 28 workers, or

25. See 'Reasons for Leaving Last Job', section 6.14.

slightly less than 50 per cent of the total, achieved wage gains in their last move. Nineteen workers (33.4 per cent) received lower wages and for ten workers (17.5 per cent) there was no appreciable change. The scale of changes is presented below:-

FIGURE 6.5

Changes in Wages for Workers Leaving Agriculture

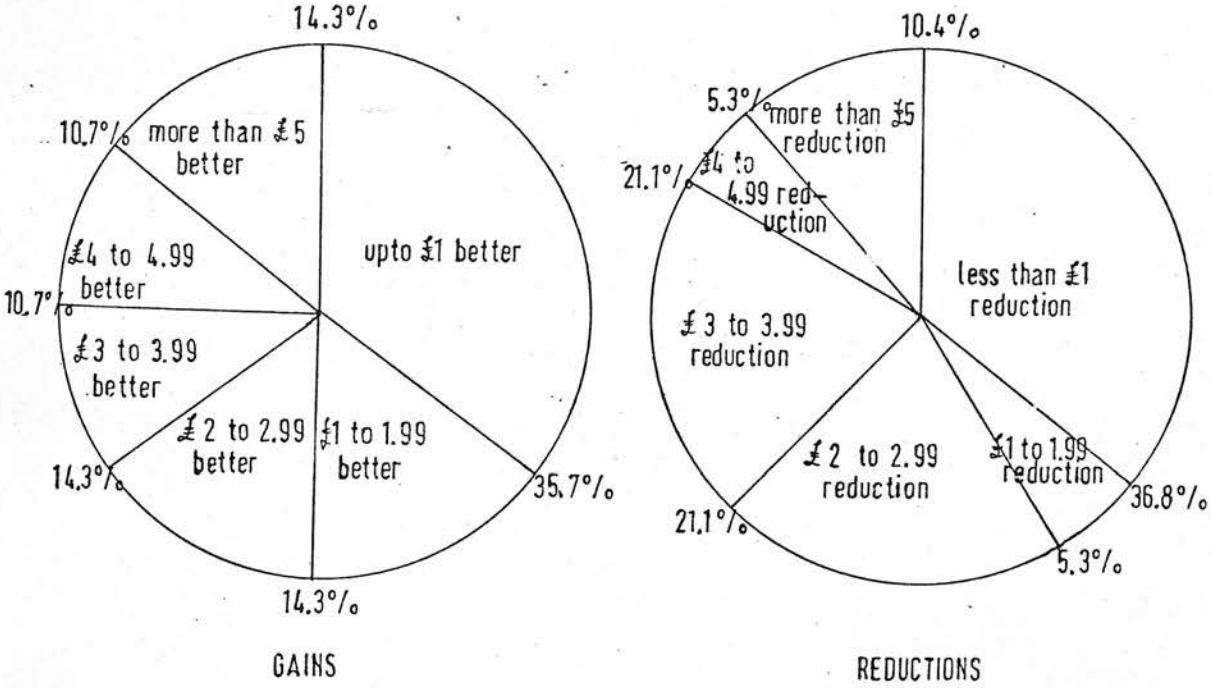


TABLE 6.16

The Size of Changes in Wages for Workers Leaving Agriculture

Wage Gains

	Up to £1 Better	£1-1.99 Better	£2-2.99 Better	£3-3.99 Better	£4-4.99 Better
Total	10	4	4	3	3
%	35.7	14.3	14.3	10.7	10.7
Cum. %	35.7	50.0	64.3	75.0	85.7

	More than £5 Better
Total	4
%	14.3
Cum. %	100.0

Wage Reductions

	Less than £1 Reduction	£1-1.99 Reduction	£2-2.99 Reduction	£3-3.99 Reduction
Total	7	1	4	4
%	36.8	5.3	21.1	21.1
Cum. %	36.8	42.1	63.2	84.3

	£4-4.99 Reduction	More than £5 Reduction
Total	1	2
%	5.3	10.4
Cum. %	89.6	100.0

From Table 6.16 it is evident that 50 per cent of those who gained increases in fact made an improvement of less than £2. Only 25 per cent of the workers gained more than £4 per week. The scale of these changes is very important when it is realised that many of these workers would, when they left agriculture, lose subsidised or free housing and other benefits, e.g. milk, potatoes and fuel; evidence, that even amongst workers who showed a net gain in money wages, there may well have been a reduction in real terms.

Further, of the 19 workers who suffered a reduction in wages, 58 per cent lost more than £2 per week. When this sort of reduction is set beside the probable losses of non-pecuniary benefits suffered by the worker, a considerable reduction in real terms is seen to have taken place. Further comment upon this issue is reserved for the next section.

6.14 Reasons for Leaving the Last Job

The following reasons were given for leaving the last job in agriculture:-

TABLE 6.17

Reason for Leaving Last Job

	Reasons		
	Redundant	Was Dismissed	Wanted Lighter Job
Total	10	3	2
%	17.5	3.5	3.5

	Wanted Better Pay	Disagreed with Employer
Total	10	1
%	17.5	1.8

	Didn't Like It	Other
Total	2	29
%	3.5	50.9

Once more 'other reasons' is a major category and included the isolation of tied cottages, the opportunity to obtain a council house, incapacitating ill-health, a desire for a more secure job without tied housing and, in quite a few cases, the fact that a farmer retired or sold up. This retiral did not mean the automatic dismissal or redundancy of the worker. Often a worker employed on

a farm for a long time desired a change of surroundings, possibly because of unwillingness to accept change on the farm itself.

Returning to a discussion of the higher mobility rates amongst older workers and the number of workers who suffered a reduction in wages, it can be seen from the data available in this survey (Fig. 6.4) that a significant number of agricultural workers leave the industry after reaching the age of 40. Seventy-four per cent of the workers were aged 40 plus, and 45 per cent of these (19 workers) had moved less than 5 years ago. Further, 42 per cent of the mobile workers had left supervisory and skilled positions in agriculture (Fig. 6.3), e.g. grieve, shepherd or dairyman. Those are skills which are not readily transferable to other industries. When these facts are related to the number of workers shown by Table 6.17 to have moved either involuntarily or when disadvantaged by ill-health, work fatigue and insecurity, both the incidence of mobility in the older age groups and the wage reductions suffered by these workers are explained. To reinforce this point, only 22 per cent of these workers who had left agriculture thought it would be easy to find another job. Yet 37 of them (63 per cent) said that they would remain in their area even in the face of redundancy - evidence of an immobile work force which has few alternatives for employment.

It is evident then, that despite the fact that many workers are capable of making a satisfactory and beneficial transfer from agriculture, there is also a sizeable minority who are disadvantaged by their move, suffering both monetary and social loss.

6.15 Previous Job History

The figures for unemployment between the last and the present job reflect the difficulties faced by many of the workers

who left agriculture. Twenty-one of the workers (37 per cent) had experienced unemployment, four of them actually stopped work temporarily. The length of time spent unemployed is set out in Table 6.18.

TABLE 6.18

Length of Time Workers Spent Unemployed on Leaving Agriculture

	Length of Unemployment		
	Less than 2 Weeks	2 to 4 Weeks	4 to 8 Weeks
Total	4	3	1
%	19.0	14.3	4.75
	8 to 26 Weeks	26 Weeks to 1 Year	More than 1 Year
Total	10	1	2
%	47.5	4.75	9.5

Not only did a large proportion of the workers experience unemployment, but for many of them it was of long duration. Sixty-six per cent of the workers were out of work for periods of longer than a month. The reason given in all cases was the inability to find work. None of these workers had a previous history of unstable employment and 35 (63 per cent) of them had held their last job for at least five years. Only three of them had experienced unemployment between that job and the one before, with just one worker out of work for longer than a month.

It appears then that the possible monetary and social costs to the workers who leave agriculture may well be compounded by periods of unemployment.

Of the 57 workers, 40 had made their last but one job change within agriculture. In fact 38 (66.7 per cent) of the workers had

never had a non-farm job before, 45 (78.9 per cent) of the workers entered agriculture straight from school.

6.16 Job Satisfaction

Table 6.19 shows the level of attachment to the present job.

TABLE 6.19

Level of Job Satisfaction

	Job Satisfaction			
	Very Much	Quite a Lot	Indifferent	Not Very Much
Total	11	36	6	3
%	19.3	63.2	10.5	5.3

	Not At All
Total	1
%	1.8

The level of job satisfaction remains high, but the fact that 17.6 per cent of the workers showed some degree of antipathy to their work must not be overlooked.[26] Also the number of workers who showed absolute satisfaction with their job was much lower than amongst agricultural workers.

This change was reflected in the number of workers attempting to change their job in the last twelve months. Now eleven workers (19.3 per cent) had tried to find another job and gave the following reasons for this:- Better pay (5), better conditions (4), job insecure (1) and desire for a change (1). The number of workers seeking better pay and conditions is to be expected in the light of

26. No doubt much of this dissatisfaction with the present job relates to the factors involved in involuntary movement as discussed above; but some of it must also result from the fact of agricultural workers finding it difficult to gain satisfaction from a non-agricultural job. This must be particularly so for workers who have been in positions of responsibility and who now find themselves in routine manual tasks.

the losses suffered by agricultural workers on leaving agriculture.

Amongst the 46 workers not actively searching for a job in the previous twelve months the following reasons were given: no particular reason (5), happy at present job (37), no chance of a better job (9), and a desire to stay in the area (4).

B. Workers Who Moved Outside Agriculture at Last Job Change

TABLE 6.20

Occupational Mobility of Workers Who Moved Outside Agriculture

Present Job \ Last Job	1. Groundstaff, Forestry and Fisheries.	2. Mining and Construction work.	3. Engineering and allied trades.	4. Material Processing and Manufacturing.	5. Transport.	6. Plant Operators.	7. Miscellaneous Labouring Jobs.	8. Selling Occupations.	9. Service Industries.	10. Professional, Managerial and Clerical.	221. Armed Services.	Row Totals
1. Groundstaff, Forestry & Fisheries	2	1			1		1		2		1	8
2. Mining & Construction Work												1
3. Engineering & allied trades	1						1					2
4. Material Processing & Manufacturing					2	1	1					4
5. Transport					5	1	3					9
6. Plant Operators						2						2
7. Miscellaneous Labouring Jobs	1	1		1	1		3					7
8. Selling Occupations			1		1		1	4				7
9. Service Industries												1
10. Professional, Managerial & Clerical			1	3								4
221. Armed Services												1
Col. Totals	4	2	2	4	10	4	10	4	2	-	1	43

It is difficult to determine from Table 6.20 any definite pattern in the movement of workers once they have left agriculture. The occupational groups groundstaff and forestry (8 workers), transport (9 workers), miscellaneous labouring jobs (7 workers) and salesmen (7 workers) have the biggest concentrations of ex-agricultural workers. These workers came from a diverse range of previous jobs, with labouring jobs absorbing the largest gross flow of workers. It might be suggested, from the large number of workers who entered labouring jobs on leaving agriculture, that this group acts in some way as a first stage for workers who leave the industry. In this group they find it easy to gain immediate employment whilst they obtain experience of non-agricultural employment. Many of them then move into other jobs as the opportunity arises.

6.17 Factors Affecting Job Choice

Workers who changed their job outside agriculture gave the following reasons for choosing their present job:-

TABLE 6.21

Reason for Choosing Present Job

	Reasons			
	No Special Reason	Good Pay	Hours of Work	Near Home
Total	11	13	3	1
%	25.6	30.2	7	2.3

	Friends, Relatives There	Only Job Available
Total	1	10
%	2.3	23.3

	Health	Responsibility	Overtime	Other
Total	3	2	1	18
%	7	4.7	2.3	41.9

As in all previous groups of workers there was a considerable proportion of the workers (in this case 25 per cent) who could give no particular reason for choosing their present job. A further 23 per cent of the workers gave their present job as the only choice open to them. 'Other' reasons included promotion, greater security, open-air job and a lighter job. Good pay is now seen to be the single most important factor in job choice. The first time that it has assumed either this prominence or accounted for such a proportion of the total.

The workers gave the following ranking to factors affecting their assessment of any job:-

TABLE 6.22

Factors Affecting Job Choice

	Factors			
	Interesting & Varied Work	High Wages	Good Relationship with Employer	
1st choice	7	2	7	
2nd choice	4	7	8	
Col. total	11	9	15	
Col. %	12.4	10.5	16.9	
	Secure Job & Steady Income	Close to Home & Good Hours	Light Job	No Choice
1st choice	17	4	0	4
2nd choice	9	3	2	6
Col. total	26	7	2	10
Col. %	30.2	8.2	2.3	11.6

The ranking of security of job and income remains persistently high, with high wages playing a relatively unimportant role. A good relationship with the employer remains at about the same level of importance as it did for the workers who have just

left agriculture, and was much reduced from that shown by agricultural workers (Table 6.9).

The proportion (12.4 per cent) who nominated interesting and varied work was the lowest of any of the four subgroups.

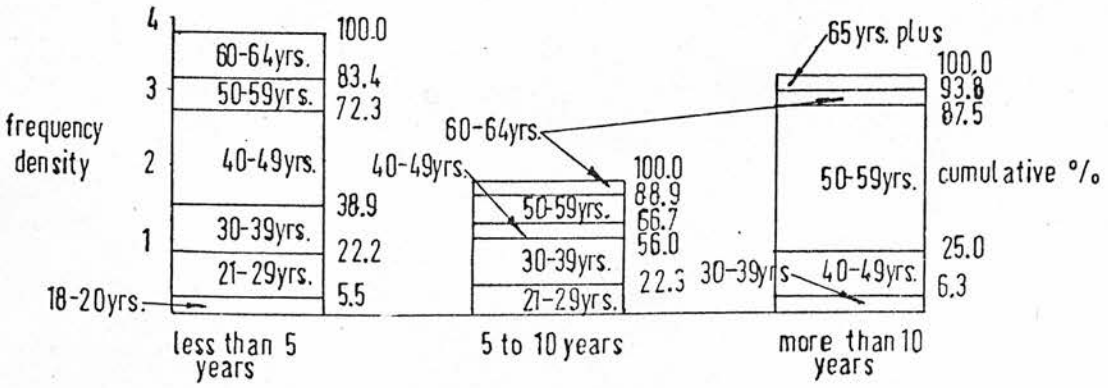
6.18 Time Spent in Present Job and Change in Pay

Over a third (37 per cent) of these workers had been with their employers for longer than ten years and all but one of these were now aged over 40 years. This fact supports the view that age retards mobility. Fig. 6.6 below shows the same bimodal distribution as does that for agricultural workers.[27] There was a similar high proportion of workers aged over 40 years and in their present job for longer than ten years.

Now, however, a considerable proportion of the workers who had been in their present job for less than five years were also aged 40 plus. For agricultural workers this proportion was 34 per cent compared to 71 per cent for this group. This figure is consistent with the previous finding of workers leaving agriculture relatively late in life and then finding it difficult to settle into a satisfactory job.

FIGURE 6.6

Frequency Density Columns for Time in Present Job, Divided Proportionally According to Age of Workers.



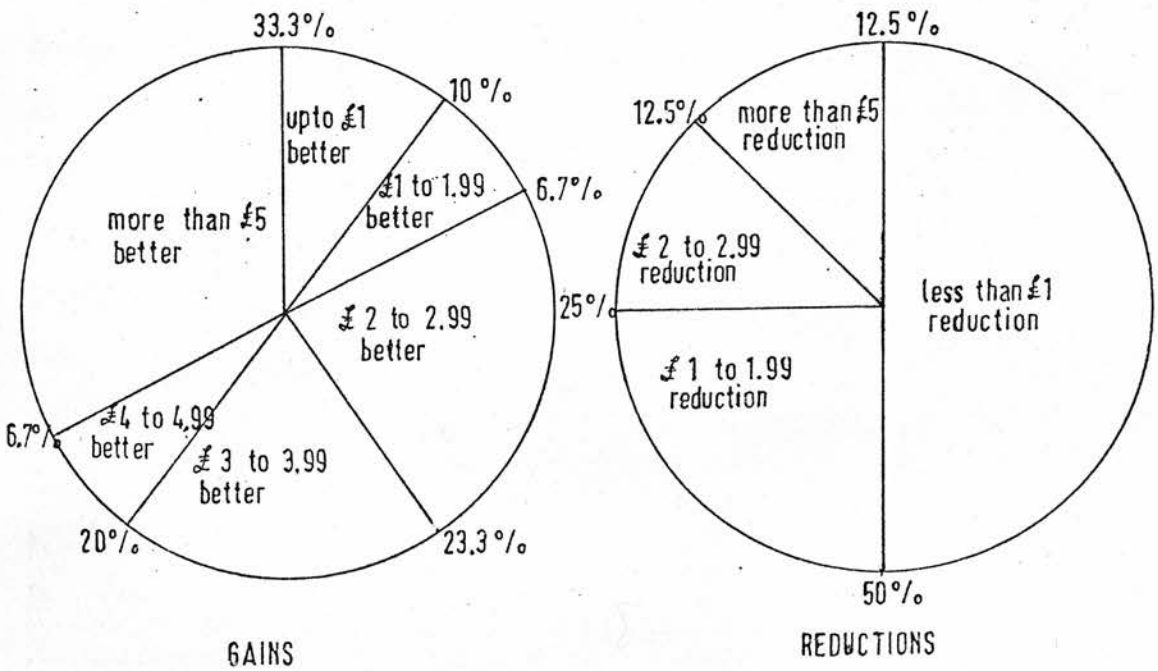
27. See Fig. 6.1 and compare with Fig. 6.4.
See also sections 4.04, 4.08, 6.08 and 6.13

Analysis of the table upon which this diagram was based supported the suggestion of an anomaly in the normal age distribution of mobility. There is evidence that age does not retard mobility amongst ex-agricultural workers in a way that might be expected from other studies of mobility already cited.[28]

Workers who changed jobs outside agriculture showed a much better record of wage gains than did those who had just left agriculture. Of the 43 workers, 30 (69.8 per cent) received a pay increase when they last changed their job, eight workers (18.6 per cent) experienced a reduction in wages and the remaining five (11.6 per cent) stayed at about the same level. This distribution contrasts with the fact that 33 per cent of the workers who left agriculture suffered a reduction in wages, and a further 17.5 per cent stayed at about the same level (Table 6.16). The scale of changes is presented in Fig. 6.7 and Table 6.23.

FIGURE 6.7

Changes in Wages for Workers Moving Outside Agriculture



28. e.g. Gallaway op. cit; Hathaway and Perkins op. cit; Jefferys op. cit.

TABLE 6.23

Changes in Wages for Workers Moving Outside Agriculture

Wage Gains

	Up to £1 Better	£1-1.99 Better	£2-2.99 Better	£3-3.99 Better	£4-4.99 Better
Total	3	2	7	6	2
%	10	6.7	23.3	20	6.7
Cum. %	10	16.7	40.0	60.0	66.7

	More than £5 Better
Total	10
%	33.3
Cum. %	100.0

Wage Reductions

	Less than £1 Reduction	£1-1.99 Reduction	£2-2.99 Reduction	More than £5 Reduction
Total	4	2	1	1
%	50	25	12.5	12.5
Cum. %	50	75	87.5	100.0

(Note: When comparing diagrams the low numbers upon which the one showing wage reductions is based should be borne in mind).

From Fig. 6.7 (left hand diagram) it is evident that not only have a high proportion of the workers who have left agriculture made gains in wages since their departure, but that these gains were often of considerable size. Sixty per cent of the gains were of more than £3, with 33 per cent gaining more than £5 per week. That is, 18 workers or 42 per cent of the total of 43 workers gained more than £3 per week at their last move, whilst only two workers lost more than £2. These figures provide a strong contrast with the uncertain monetary rewards of workers who had just left agriculture. (See Fig. 6.5).

6.19 Reasons for Leaving Last Job

The workers gave the following reasons for leaving their last job:-

TABLE 6.24

Reason for Leaving Last Job

	Reasons		
	Redundant	Wanted Lighter Job	Wanted Better Pay
Total	9	1	5
%	21	2	12

	Disagreed with Employer	Was Promoted
Total	1	9
%	2	21

	Other Reasons
Total	18
%	42

A prominent feature once more is the category of 'other reasons'. This included such factors as lack of security in the job, ill-health, a desire to be nearer the family and to be nearer a town. One worker anticipated the closure of his firm and used the remaining time to look round for a suitable alternative. He then left his old job before the firm's closure. Promotion was an important reason for leaving the last job, accounting for 21 per cent of the total changes. In fact, a number of these workers were men gaining promotion with their present employer. That is changes were intra-firm and not inter-firm. The overall picture revealed by Table 6.24 is that a higher proportion of the workers tended to move voluntarily than amongst workers who left agriculture. Also that many of them gained by their move.

6.20 Previous Job History

Workers who changed their jobs outside agriculture do not appear to be so prone to periods of unemployment as do those who had just left agriculture. Now 36 (83.7 per cent) of the workers moved straight to their next job and the remaining seven started their job search immediately. Of these workers six were unemployed for periods of longer than a month, and three of them were unemployed for more than six months. The reason given by the six workers for being out of work was inability to find a job.

Of the 43 workers 29 (67.5 per cent) had been in agricultural jobs in their last job but one, 40 of the 43 workers had entered agriculture straight from school.

6.21 Job Satisfaction

Amongst this group of workers the level of satisfaction expressed with the job was high as Table 6.25 shows.

TABLE 6.25

Level of Job Satisfaction

	Job Satisfaction		
	Very Much	Quite a Lot	Indifferent
Total	14	27	2
%	32.6	62.8	4.6

The evidence of dissatisfaction with the job found amongst workers who had just left agriculture (Table 6.19) has disappeared. A pattern of general satisfaction similar to that found amongst workers who remained within agriculture has returned (Table 6.12).

Presumably because of their high level of job satisfaction only five workers out of the 43 had made an attempt to find another job in the preceding twelve months. The main reason given for this was the desire for better pay.

Contentment with the present job was ranked very highly amongst those workers making no job search. Thirty-two workers gave this as their reason, but also mentioned were:- no chance of a better job (6), a desire to stay in the area (3) and no special reason (1).

A COMPARATIVE STUDY

It is now proposed to examine jointly some of the main features which have emerged from the study of the workers in their subgroups. This study will enable clearer comparisons to be made, and also make possible the statistical testing of similarities and differences between the groups. Most attention will be focused on the differences between workers who remained within agriculture and those who had left at their last change of job.

6.22 Factors Affecting Job Choice

Table 6.26 below compares the factors affecting job choice for the two groups of workers in the survey.

TABLE 6.26

Comparison of Factors Affecting Job Choice for Two Groups of Workers

	Interesting and Varied Work	High Wages	Opportunities for Overtime
Agricultural Workers	29	12	3
Ex-agricultural Workers	31	18	5
Column Totals	60	30	8

	Modern Equipment & Good Conditions	Security of Job and Steady Income
Agricultural Workers	29	51
Ex-agricultural Workers	19	58
Column Totals	48	109

	Close to Home & Good Hours	Good Relationship with Employer	House Provided
Agricultural Workers	6	61	1
Ex-agricultural Workers	16	32	-
Column Totals	22	93	1

	Lighter Job	No Choice	Row Totals
Agricultural Workers	2	8	200
Ex-agricultural Workers	-	19	200
Column Totals	2	27	400

Examination of Table 6.26 reveals certain obvious differences in choice of factors. The most striking one is the reduction in the number of workers who stressed employer-employee relationship once they had left agriculture.[29] Agricultural workers are also seen to

29. This change in attitudes has already been discussed above, section 6.12.

recognise as important the need for modern equipment and good working conditions. Probably this reflects the highly mechanised state of the industry at the present time and also the high proportion of tractormen in the survey (23 per cent). Many of the workers who left agriculture entered manual occupations such as labouring, where sophisticated mechanical equipment does not play such an important role. Since agricultural workers tend to live at or near their job in a tied cottage, nearness to home was possibly taken for granted, hence its low rating compared to ex-agricultural workers. High wages are seen to be more important to the ex-agricultural worker, although for neither group do they compare in importance to the security of job and income. Both groups of workers were similar in their desire for interesting work.

Analysis of this table showed that the two groups of workers did differ significantly in their assessment of job attributes, substantiating the second point in the introduction.

6.23 Time in Present Job and Change in Pay

In the detailed examination carried out above,[30] it was discovered that agricultural workers showed a pattern of declining job changes with age; a pattern, it was noted, which was similar to that found in other studies cited in the discussion. The pattern of movement exhibited by ex-agricultural workers, and particularly by those who had just left agriculture, did not show this age effect on mobility (Fig. 6.4). In fact 73 per cent of the workers who had been in their present job for less than five years were aged over 40 years, compared with 34.4 per cent of the workers who remained within agriculture. It is now proposed to test the significance of this

30. See Fig. 6.1

difference between the two groups of workers. The age distribution for workers who had been in their job less than five years is shown below:-

TABLE 6.27

Age Distribution of Workers Who Had Been in the Job for Less than Five Years[31]

	Less than 40 Years	More than 40 Years	Row Totals
Agricultural Workers	21	11	32
Workers Leaving Agriculture at Last Job Change	7	19	26
Totals	28	30	58

It was established that there was a definite difference between the two groups of workers. This difference should be considered in the light of the fact that many of the workers aged over 40 who left agriculture appear to have done so involuntarily. That is, they left either after dismissal, redundancy or for health related reasons.

The fact that these workers left involuntarily, coupled with their age and specialised skills meant that they were often at a monetary disadvantage in making the change away from agriculture. A

31. The chi-squared test for this table was calculated using the correction for continuity; i.e. the values of all observed frequencies are brought closer to those of the expected frequencies by the addition or subtraction of 0.5 before the computation of chi-square, thus reducing the value; see Nie, N.H. et al. Statistical Package for Social Scientists, 1970, p. 275; Blalock, H.M. Social Statistics, 1960, p. 220 ff. In this case, because of the relatively large value for 'n', this gave a result approximately similar to the Fisher's exact test.

comparison of the change in wages for workers who remained within agriculture and those who left is made in Table 6.28

TABLE 6.28

Change in Wages for Those Remaining Within Agriculture and Those Leaving

	Increase in Wages	Reduction in Wages
Workers Remaining in Agriculture	48	8
Workers Leaving Agriculture	28	19
Column Totals	76	27
Column %	58.5	20.8

	Wage Remains the Same	Row Totals
Workers Remaining in Agriculture	17	73
Workers Leaving Agriculture	10	57
Column Totals	27	130
Column %	20.8	

This table shows clearly that workers who left agriculture were more likely either to gain no improvement in wages or to suffer an actual reduction than workers who remained within the industry. Statistical analysis established the difference beyond all reasonable doubt. The non-monetary benefits lost by these workers must also be borne in mind.

6.24 Employment Record and Job Satisfaction

From the separate analysis carried out for each group of workers it was discovered that there appeared to be amongst those who left agriculture at their last job change:

a. A greater number of involuntary movers,

b. A higher incidence of unemployment,

c. A higher level of dissatisfaction with the present job.

Each of these features will be examined in turn by means of a comparison between workers who remained within agriculture and those who left.

Table 6.29 presents the reasons for leaving the last job.

TABLE 6.29

Reason for Leaving Last Job for Two Groups of Workers

	Reasons								
	Redundant	Dismissed	Wanted Better Pay	Lighter Job	Disagreed with Employer	Promoted	Family Reasons	Didn't Like It	Other Reasons
Workers Remaining in Agriculture	9	-	9	-	6	9	2	4	34
Workers Leaving Agriculture	10	3	10	2	1	0	-	2	29

	Row Total
Workers Remaining in Agriculture	73
Workers Leaving Agriculture	57

The 'other' reasons given by workers are defined in Table 6.30.

TABLE 6.30

Distribution of 'Other Reasons' for Two Groups of Workers

	Isolation, Lack of Schools, etc.	Housing	Health
Workers Remaining in Agriculture	6	5	-
Workers Leaving Agriculture	4	7	6

	Age	Attracted by Possibility of New Job[B]	Miscellaneous Reasons[A]	Row Total
Workers Remaining in Agriculture	2	12	9	34
Workers Leaving Agriculture	2	0	10	29

(Note: A. Includes takeover of farm, retiral of farmer, lack of security, disagreements with other staff and entry to college;

B. That is, attracted by such features as an Angus herd, chance to work with machinery, more responsibility in a new job).

Evaluation of these tables showed that 29 (51 per cent) of the workers who left agriculture did so for what might be termed involuntary reasons. These included those workers dismissed or redundant, who needed to take a lighter job, or were affected by ill-health, age, or lack of security. A comparable figure for workers who remained within agriculture was 13 (17.8 per cent). Statistical analysis of this difference established that workers who left agriculture were more prone to involuntary movement than those who remained within the industry.

Just as workers who left agriculture were more prone to involuntary moves so they were more prone to suffer unemployment.

Table 6.31 below compares the record of unemployment for the two groups of workers.

TABLE 6.31

Distribution of Unemployment for Two Groups of Workers

	New Job Fixed Up Immediately	Unemployed	Totals
Workers Remaining in Agriculture	68	5	73
Workers Leaving Agriculture	36	21	57
Column Total	104	26	130
Column %	80	20	100

The difference in experience of unemployment is immediately obvious and statistical analysis showed that this difference was significant beyond all reasonable doubt.

Workers in their first job since leaving agriculture also showed a lower degree of job satisfaction than did workers who had remained in agriculture (Table 6.32).

TABLE 6.32

Level of Job Satisfaction

	Very Much	Quite a Lot	Indifferent
Workers Remaining in Agriculture	25	39	8
Workers Leaving Agriculture	11	36	6

	Not Very Much	Not at All
Workers Remaining in Agriculture	1	-
Workers Leaving Agriculture	3	1

For the purposes of analysis this table was reduced in size by combining the figures for 'indifferent', 'not very much' and 'not at all'. This gave a result which pointed to a higher level of

dissatisfaction amongst workers who left agriculture, but did not yield conclusive statistical proof.

Following from this expression of job dissatisfaction more of the ex-agricultural workers had tried to find another job in the previous year (Table 6.33).

TABLE 6.33

Number of Workers Trying to Find Another Job in the Previous Twelve Months

	Did Not Try to Find Another Job	Did Try to Find Another Job	Row Total
Workers Remaining in Agriculture	69	4	73
Workers Leaving Agriculture	46	11	57

Statistical analysis of the difference in job search established beyond reasonable doubt there had been a higher level of job search in the previous twelve months amongst workers who had left agriculture than amongst those who had remained.

6.25 Conclusion

In conclusion, then, it is apparent that a large proportion (51 per cent) of the workers who had just left agriculture did so involuntarily. For this reason and the associated factors of age, health, and non-transferability of many skills, half of the workers who left agriculture either gained no improvement in wages or made an actual loss. Yet this was at a time when they were also likely to suffer a reduction in fringe benefits. That is, more than 50 per cent may in fact have suffered a reduction in real terms.

Also amongst workers who left agriculture there was evidence of a higher degree of job dissatisfaction. This occurrence will be mainly related to job conditions, but the effect of a lifetime

previously spent in farming and the difficulty of adapting to another job, however good, must not be overlooked.

Amongst those workers who have adapted to work outside agriculture, and made at least one job change since leaving farming, there is every indication that the change has been beneficial to them. Their level of job satisfaction and employment is high and many of them have gained wage increases by their moves. The positions gained by these workers and the number changing jobs through promotion is an indication that they can compete equally with non-farm workers.

6.26 Summary of Results

1. The importance of obtaining data on gross flows of workers has been substantiated on several counts, e.g. it showed that there was considerable movement between agriculture and industry and back again. Also it showed that there was a loss of skilled supervisory staff which may be a drain upon agricultural resources.

2. In analysing the factors affecting job choice, a number of features common to all groups of workers were found. These were that workers often could give no specific reason for having chosen their present job, or that it was the only job available to them. Only amongst workers who changed jobs outside agriculture did 'good pay' assume important proportions. That is, reasons given for choosing the present job tended to be non-monetary and often non-specific. Job security and regular income were rated highly by all four groups of workers. High wages and the opportunity for overtime were not thought very important, particularly amongst agricultural workers. A major difference between agricultural and ex-agricultural workers was their choice of the importance of a good working relationship with their employer. To the agricultural worker this was the

single most important factor, accounting for 30 per cent of the total. Amongst those who had left agriculture this proportion dropped to about 14 per cent. This change no doubt reflects the close relationship which exists between the farm worker and his employer, who in most cases works alongside him. Once the worker enters a larger and more impersonal labour force this relationship is broken.

3. The time spent in the present job cross-tabulated with age followed the normal pattern for workers within agriculture, i.e. frequency of job change was reduced with age. This was not the case for workers leaving agriculture. Information on their reason for leaving, and the fact that 37 per cent were unemployed after leaving, lent support to Gallaway's finding that workers of 40 years and over were often involuntary and disadvantaged movers.[32]

4. Workers who remained within agriculture showed a much more consistent pattern of wage gains than did those who had just left. Over half of the workers who left agriculture either suffered a wage reduction or stayed at the same level. At the same time many of them lost a free cottage and other benefits. A substantial number (66 per cent) of the workers who remained within agriculture made wage gains and very few made actual losses. Workers who had established themselves in jobs outside agriculture also tended to obtain wage gains. These results, when put beside the factors affecting job choice, underline the weakness of relying solely upon a traditional interpretation of the relatively low wages in agriculture. They also show the problems of applying neo-classical theory to the labour market, without due consideration

32. Gallaway op. cit.

of the non-monetary aspects of job choice. Indeed it must be asked to what extent any worker evaluates the job choices before him in purely economic terms.[33]

5. The record of employment was good for all groups of workers except those who had just left agriculture, where 37 per cent experienced unemployment. Similarly it was this group which registered the highest level of dissatisfaction with its present job, the remainder being generally satisfied.

33. These findings are in accord with those already cited for Gallaway, Hathaway and Perkins.

CHAPTER 7

GEOGRAPHICAL MOBILITY

7.01 Introduction

The discussion of geographical mobility in section 3.05 and the evidence from other surveys[1] suggest several points for examination:

1. That most geographical mobility by manual workers will be over short distances.

2. Agricultural workers moving within agriculture may tend to move longer distances than either workers leaving agriculture or moving between other industries.

3. Workers moving longer distances will tend to show increased earnings.

4. Distances moved will decrease with age.

5. Marital status and family size will affect mobility.

Before proceeding to the results it should be noted that, in the survey, the question asked of workers[2] referred only to the

1. See for example: Palmer, G. L. Labor Mobility in Six Cities 1954, p. 126; Jefferys, M. Mobility in the Labour Market 1954, p.110; Mackay, D. I. et al. Labour Markets under Different Employment Conditions, 1971, p. 240 ff., p. 395 ff; Nalson, J. S. Mobility of Farm Families, 1968; Gallaway, L. E. Geographic Flows of hired Agricultural Labor, 1957-60, Amer. J. Agric. Econ. 50, 1968, p. 199 ff; Hathaway, D. E. and Perkins, B. B. Farm Labor Mobility, Migration and Income Distribution, Amer. J. Agric. Econ. 50, 1968, p. 342 ff.

2. See appendix 2.1, Q.16.

geographical mobility of job changers. That is, mobility by the interviewee, or by someone in the family of which he was the head. Household moves for other reasons or by the parental household were excluded. In fact in all cases, except one, geographical mobility occurred when the interviewee changed his job.[3]

7.02 The Problem of Coding the Results

Before discussing the direction of workers' movements something must be said of the method of coding such mobility. Three possible methods of locating change and direction of geographical movement were initially considered:

1. Use of the existing Ordinance Survey Grid system as it crosses Fife.

2. Use of existing parish boundaries.

3. Use of place names located on a map of Fife.

1. The grid system, with the definite advantage of a ready-made reference system for the exact location of movement, involved using over 3,000 basic kilometre squares. It was felt that, in a survey with 200 participants, this would give too many empty cells. To have increased the number of squares used in a 'unit' would have destroyed much of the advantage of the fine reference system of single squares, e.g. a worker's movement within an area of, say, 9 square kilometres would be lost.

3. The exception was a man living in a house tied to the job of his wife as a domestic help on another farm. When she had to stop work because of pregnancy he had to move to a farm providing a house tied to his own job.

2. The parish system, whilst providing a well established and defined division of Fife, suffered from two basic problems. The first of these was that some of the parishes were large (e.g. Dunfermline) and others too small (e.g. Pittenweem). Secondly, towns and villages have changed considerably since these boundaries were established, partly through housing developments (e.g. in the Chapel area of Kirkcaldy) and partly by urban developments (e.g. Glenrothes New Town). These changes would cause serious anomalies if the parish boundaries were used.

3. For these reasons it was decided to use a code based on places of origin and destination. This method gave precise locations for all movement within Fife over whatever distance. Every town and village in Fife, occurring in the survey, was coded. Outlying farms were grouped under the nearest centre of population. Codes for places outside Fife were referred to by county if they were in the United Kingdom. Otherwise it was by country of origin.

7.03 A Preliminary View of the Survey Findings

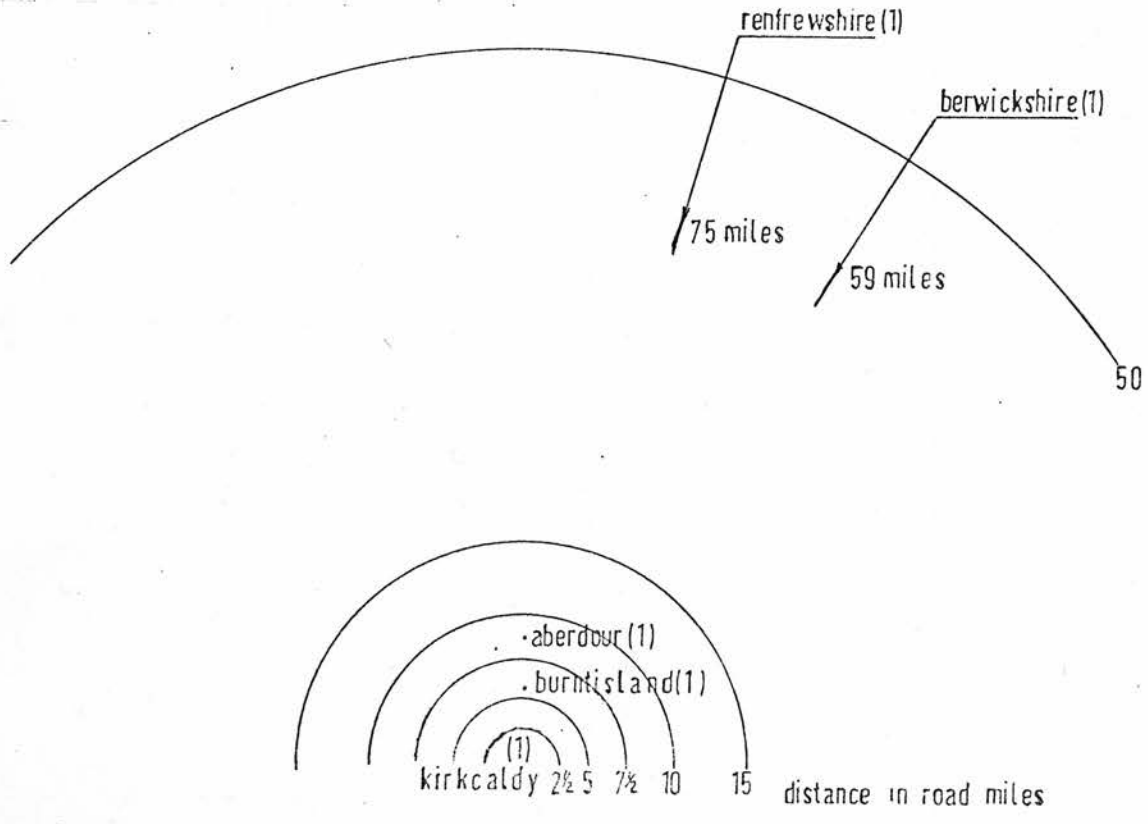
The direction of movement shown in Appendices 3.1 and 3.2 indicates that agricultural workers have shown a higher degree of geographical mobility (78 per cent mobile) than ex-agricultural workers (62 per cent mobile). It will also be seen that workers moved from a range of places, with no single place showing a significant loss of workers. However, a far higher proportion of agricultural than ex-agricultural workers moved from outside Fife into the county. The agricultural workers from outside Fife, over half from the two counties of Perth and Angus, numbered 27 (35 per cent of mobile workers). Of the 13 (21 per cent of mobile workers) ex-agricultural workers who moved from outside Fife, there was no large

flow from any particular county.

Examination of the columns showing place moved to reveals another difference between the agricultural and ex-agricultural workers. The agricultural workers moved to places almost as diverse as those they left. That is, there has been no marked concentration of movement into certain areas. This result is to be expected when it is considered that farm workers are predominantly in tied housing (86 per cent of the sample) and that these are scattered on holdings, rather than in nucleated settlements. Workers who either left agriculture, or who moved within the non-farm sector, usually took employment in population centres. This movement explains the marked net gain of places like Cupar (11), St. Andrews (7) and Glenrothes (4), and the concentration of movement into fewer centres. Diagrams 7.1a to 7.1d show the origins of all ex-agricultural workers who moved into towns with gross flows of five or more workers.

FIGURE 7.1a

Movement of Ex-Farm Workers into Kirkcaldy



(Note: In this diagram and those below, numbers in brackets indicate number of migrants. Place names are underlined to indicate movement from outside Fife).

FIGURE 7.1b

Movement of Ex-Farm Workers into St. Andrews

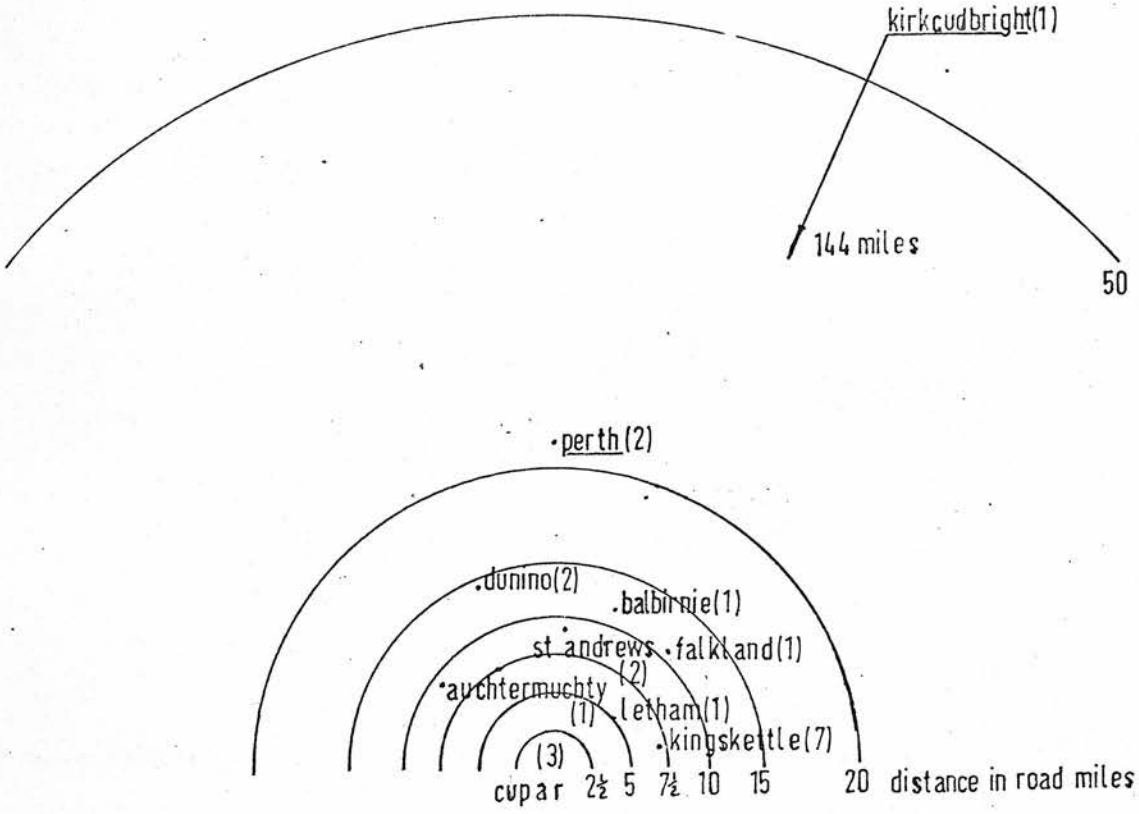


FIGURE 7.1c

Movement of Ex-Farm Workers into Cupar

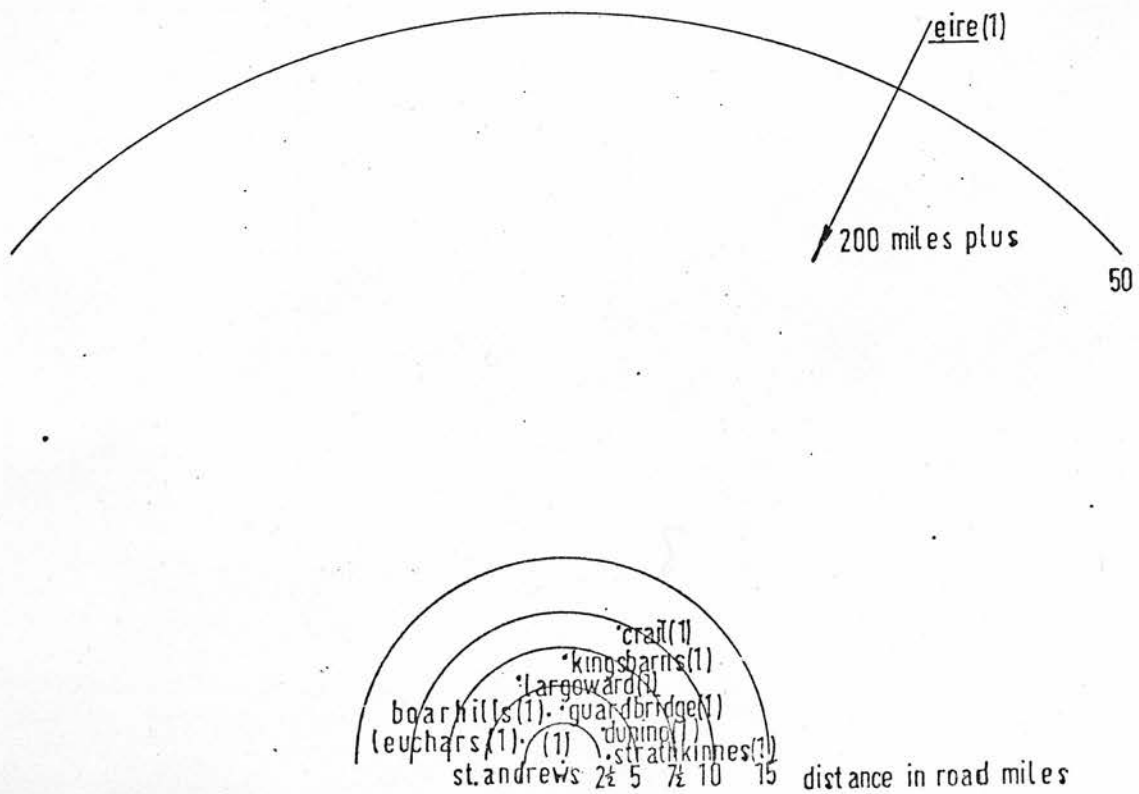
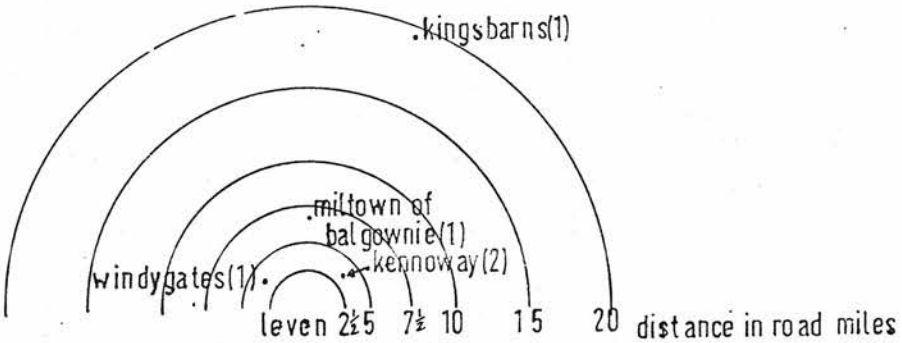


FIGURE 7.1d

Movement into Leven of Ex-Farm Workers



These diagrams show that even centres which attracted a number of workers, did so chiefly from the immediate vicinity. That is, most movement is over a short distance. Figure 7.2 and Table 7.1 show distances moved by all workers in the survey.

FIGURE 7.2

Distance Moved by Workers at Their Last Move

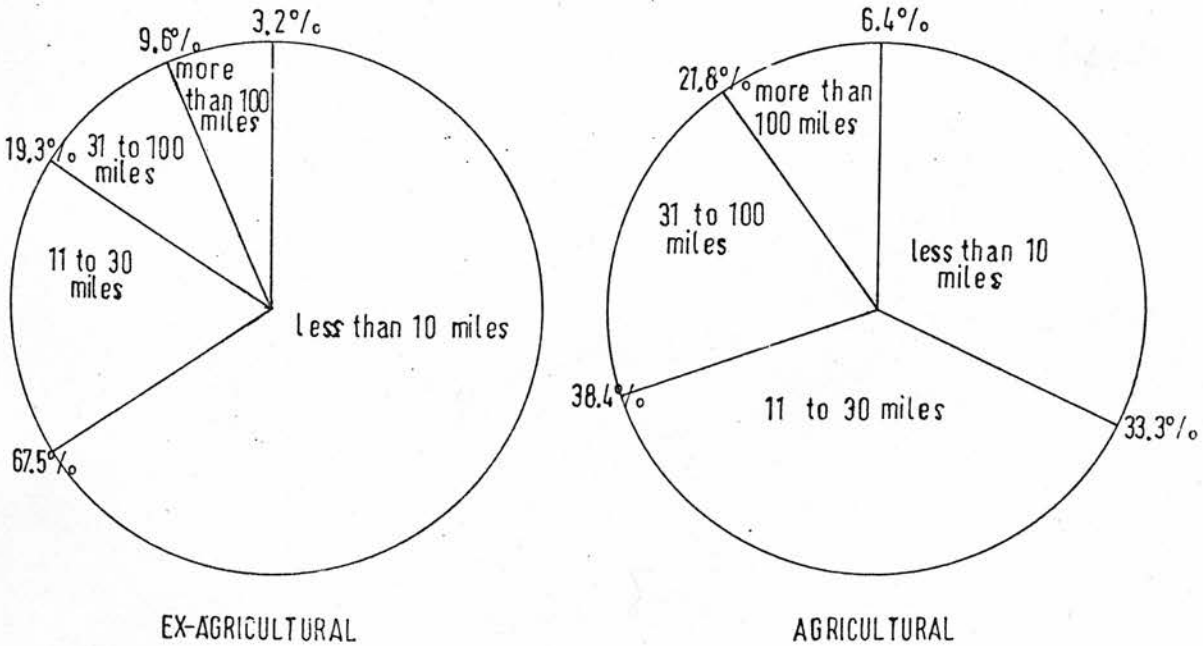


TABLE 7.1

Distance Moved by Workers at Their Last Move

Agricultural

Distance	No.	Percentage	Cumulative Percentage
Less than 10 miles	42	67.5	67.5
11 to 30 miles	12	19.3	86.8
31 to 100 miles	6	9.6	96.4
More than 100 miles	2	3.2	100.0

Ex-Agriculture

Distance	No.	Percentage	Cumulative Percentage
Less than 10 miles	26	33.3	33.3
11 to 30 miles	30	38.4	71.7
31 to 100 miles	17	21.8	92.5
More than 100 miles	5	6.4	100.0

It is clear from Table 7.1 that movement by manual workers tends to be over short distances. Movement by agricultural workers tends to be over longer distances than that for ex-agricultural workers. It will be seen that, taking the figures for all workers, 48.6 per cent moved less than ten miles at their last move and 78.5 per cent moved less than 30 miles. Only five per cent moved more than 100 miles.[4]

Furthermore, there is a significant difference in the distance moved by the two groups of workers. Twenty-eight per cent of the agricultural workers moved more than 30 miles, but only 12.8 per cent of the ex-agricultural workers were in this category. This difference reflects the larger number of workers who entered farms in Fife from other counties. Similarly, only 33 per cent of

4. This fully accords with the findings of other surveys, e.g. Simmons, J. C. An Analytical Study of Labour, Ph.D. Thesis London, 1966; Mackay et al. op. cit. p. 240 ff; Palmer op. cit. p. 126; Jefferys op. cit. p. 110.

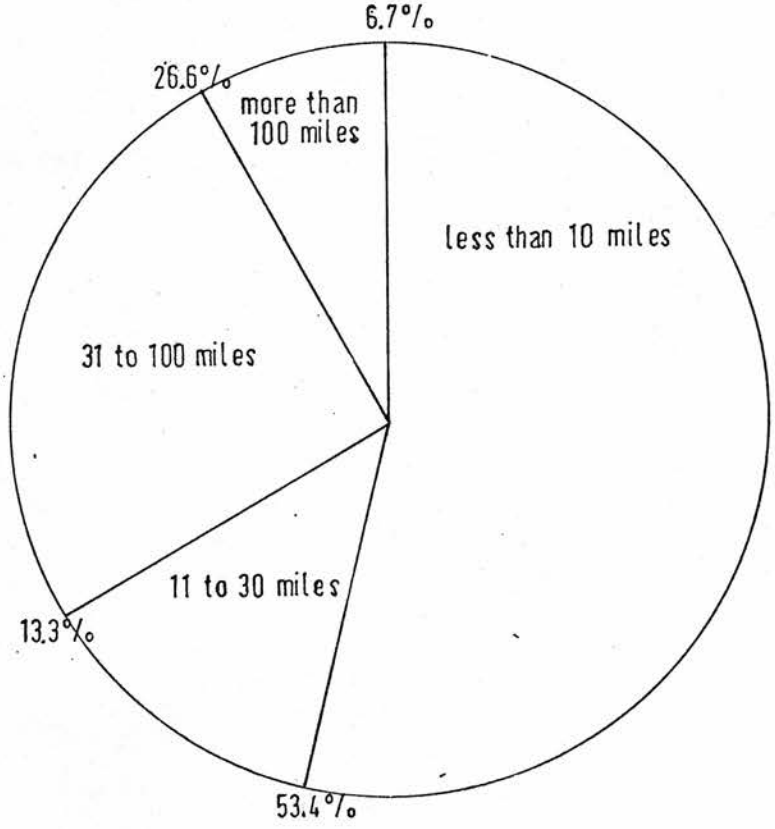
the agricultural workers moved less than ten miles compared with 67 per cent of the ex-agricultural workers. Analysis by the chi-squared test showed that this difference in movement patterns was very unlikely to have occurred by chance.

Workers whose last change of job involved a geographical move are tabulated in Figure 7.3 with statistics on their direction of movement.

FIGURE 7.3

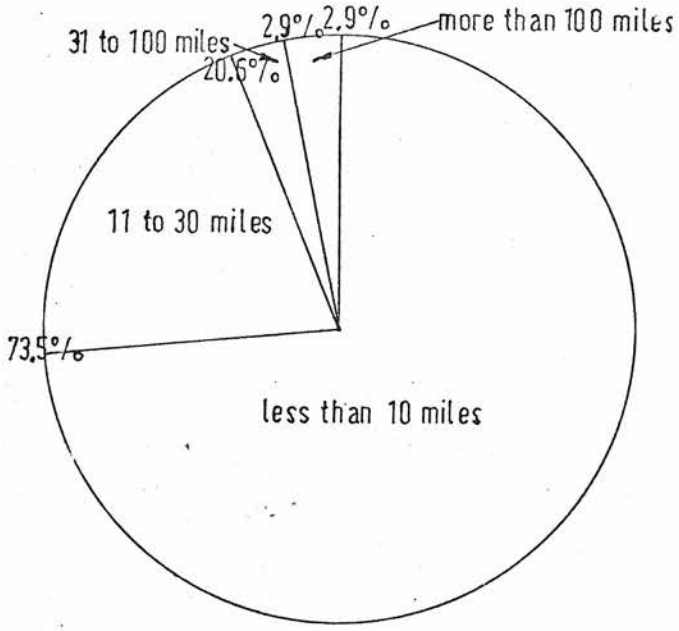
Distance Moved by Workers According to Direction of Industrial Mobility for Workers whose Last Change of Job Co-incided with their Last Instance of Geographical Mobility

Workers Moving Outwith Agriculture



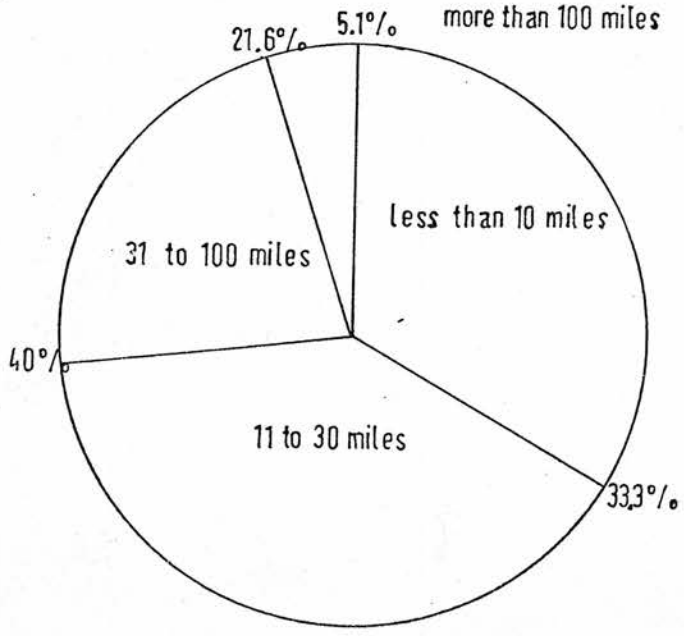
Distance	No.	Percentage	Cumulative Percentage
Less than 10 miles	8	53.4	53.4
11 to 30 miles	2	13.3	66.7
31 to 100 miles	4	26.6	93.3
More than 100 miles	1	6.7	100.0
	15		

Workers Leaving Agriculture



Distance	No.	Percentage	Cumulative Percentage
Less than 10 miles	25	73.5	73.5
11 to 30 miles	7	20.6	94.1
31 to 100 miles	1	2.9	97.0
More than 100 miles	1	2.9	100.0
	34		

Workers Moving Within Agriculture



Workers moving within agriculture (cont.)

Distance	No.	Percentage	Cumulative Percentage
Less than 10 miles	20	33.3	33.3
11 to 30 miles	24	40.0	73.3
31 to 100 miles	13	21.6	94.9
More than 100 miles	3	5.1	100.0
	60		

Figure 7.3 supports the suggestion that workers who remained within agriculture tended to move greater distances than either those who had just left, or who had previously left, agriculture. In order to carry out a statistical test based on this table, columns '31 to 100 miles' and 'more than 100 miles' were combined because of the low cell totals. Also, in view of the few remaining low cell totals, a correction for continuity[5] was applied to reduce the sum of chi-squared. The test showed that, beyond reasonable doubt, there was a difference in distance moved between the two groups of workers.

Possible reasons for this difference are that ex-agricultural workers were affected by the availability of housing,[6] and uncertainty about job prospects beyond their immediate vicinity. As long as a worker was in agriculture, a number of distinct occupational categories of grieve, shepherd, etc. were open to him. After leaving agriculture, labouring and other manual jobs are possibly not so well defined. This difference means that an agricultural worker will tend to have a greater knowledge of the job routine facing him in any new job, thus reducing the element of uncertainty.

5. For the use of correction for continuity see Table 6.27, footnote.

6. See section 9.07

7.04 The Effect of Geographical Mobility on Earnings

The third point outlined for discussion was that workers who moved furthest would generally show the greatest increase in earnings. It is proposed to examine this suggestion by reference to the group of workers who were geographically mobile when last changing their job. This comparison is shown in Tables 7.2 and 7.3.

TABLE 7.2

Cross-tabulation of Distance Moved by Gain in Wages for Ex-agricultural Workers

Gain in Wages	Distance Moved: Less than 10 Miles	11 to 30 Miles	More than 30 Miles	Row Totals
Less than £1 better	6	1	0	7
£1 to 1.99 better	2	1	0	3
£2 to 2.99	1	2	2	5
£3 to 3.99 better	1	0	0	1
£4 to 4.99 better	2	0	0	2
More than £5 better	3	0	3	6
Column Totals	15	4	5	24
Percentage	62.5	16.7	20.9	

TABLE 7.3

Cross-tabulation of Distance Moved by Gain in Wages for Agricultural Workers

	Distance Moved	
Gain in Wages	Less than 10 Miles	11 to 30 Miles
Less than £1 better	7	6
£1 to 1.99 better	5	4
£2 to 2.99 better	2	3
£3 to 3.99 better	1	1
£4 to 4.99 better	1	1
More than £5	1	1
Column Totals	17	16
Percentage	37.8	35.6

	More than 31 Miles	Row Totals
Less than £1 better	1	14
£1 to 1.99 better	4	13
£2 to 2.99 better	2	7
£3 to 3.99 better	2	4
£4 to 4.99 better	0	2
More than £5	3	5
Column Totals	12	45
Percentage	26.7	

Unfortunately neither of these tables can be said to support or refute the hypothesis of wage increases being a function of distance moved. Table 7.2 is dominated by the large number of ex-agricultural workers who moved less than ten miles, half of whom received less than £2 per week increases. All the workers who moved more than 31 miles received more than £2 per week increases. Statistical analysis, using both the chi-squared and Cramer's V tests, indicated that there probably was an association between distance moved and change in earnings, but did not offer conclusive proof of this. Possibly this is a result of the low value for 'N'

and the subsequent low cell values. Table 7.3 shows a similar pattern for agricultural workers. Although workers seem prepared to move greater distances for a smaller increase in wages; this change may be a reflection of both the lower money costs of moving from one tied house to another, and the reduced non-money costs of greater certainty about job prospects.

To sum up, there appears to be some degree of association, although not conclusively proved, between the level of increase in wages and the distance moved.

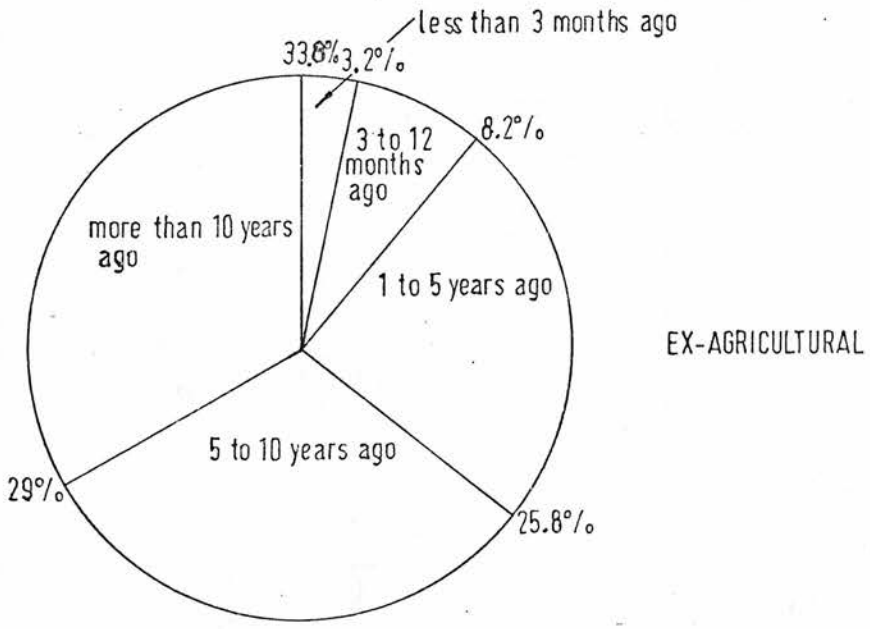
7.05 Age and its Effect on Mobility

In the introduction it was suggested that geographical mobility decreased with age. This proposition is examined in Figure 7.4.

FIGURE 7.4

Time of Last Move for Two Groups of Workers

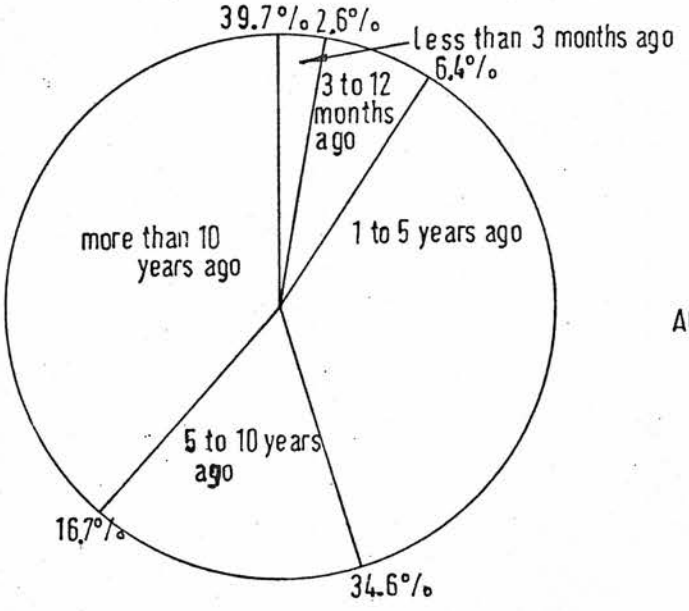
Ex-agricultural Workers



(cont.)

Time of Last Move	No.	Percentage	Cumulative Percentage
Less than 3 months ago	2	3.2	3.2
3 months to 1 year ago	5	8.2	11.4
1 year to 5 years ago	16	25.8	37.2
5 years to 10 years ago	18	29.0	66.2
More than 10 years ago	21	33.8	100.0
	62		

Agricultural Workers



AGRICULTURAL

(cont.)

Time of Last Move	No.	Percentage	Cumulative Percentage
Less than 3 months ago	2	2.6	2.6
3 months to 1 year ago	5	6.4	9.0
1 year to 5 years ago	27	34.6	43.6
5 years to 10 years ago	13	16.7	60.3
More than 10 years ago	31	39.7	100.0
	78		

In the short term (up to one year) there was no difference between the two groups of workers. In the short to medium term agricultural workers were more mobile, less mobile in the medium term (five to ten years), and most mobile in the more remote past (over ten years ago). Analysis of the difference between the two groups of workers was inconclusive. The apparent difference was not established beyond reasonable doubt.

Table 7.4 shows the time of the last move cross-tabulated with age:

TABLE 7.4

Cross-tabulation of Age by Time of Last Move for Two Groups of Workers

Ex-Agricultural Workers

Time of Last Move

Age Group	Less than 3 Months	3 Months to 1 Year	1 Year to 5 Years
21 to 29 Years	-	2	1
30 to 39 Years	-	-	1
40 to 49 Years	1	1	4
50 to 59 Years	1	1	5
60 to 64 Years	-	1	4
More than 65	-	-	1
Column Total	2	5	16
Column %	3.2	8.1	25.8

Time of Last Move

Age Group	5 to 10 Years	More than 10 Years	Row Total	Row %
21 to 29 Years	1	-	4	6.5
30 to 39 Years	2	2	5	8.1
40 to 49 Years	8	5	19	30.6
50 to 59 Years	2	8	17	27.4
60 to 64 Years	5	4	14	22.6
More than 65	-	2	3	4.8
Column Total	18	21	62	
Column %	29.0	33.9		100.0

Agricultural Workers

Time of Last Move

Age Group	Less than 3 Months	3 Months to 1 Year	1 Year to 5 Years
21 to 29 Years	-	2	7
30 to 39 Years	2	1	7
40 to 49 Years	-	2	4
50 to 59 Years	-	-	7
60 to 64 Years	-	-	2
More than 65	-	-	-
Column Total	2	5	27
Column %	2.6	6.4	34.6

Age Group	5 Years to 10 Years	More than 10 Years	Row Total	Row %
21 to 29 Years	1	-	10	12.8
30 to 39 Years	4	-	14	17.9
40 to 49 Years	5	11	22	28.2
50 to 59 Years	3	13	23	29.5
60 to 64 Years	-	2	4	5.1
More than 65	-	5	5	6.4
Column Total	13	31	78	
Column %	16.7	39.7		100.0

This table shows that the incidence of geographical mobility decreases with age. A finding which accords with the results of other studies.[7] Once the worker enters his thirties his mobility declines. When he enters his forties mobility for him was, predominantly, something which happened more than five years ago. This age relationship was particularly strong for agricultural workers. All, save one, of the movements made more than ten years ago were restricted to workers of 40 plus, and, movements made five to ten years ago were restricted to workers over 30. Agricultural workers aged under 39 accounted for just under 60 per cent of all movement in the last ten years. This difference in mobility rates between the age groups was established beyond reasonable doubt.

For ex-agricultural workers, the effect of age is not so strong, 19 (34 per cent) of the mobile workers aged over 40 years had moved in the last five years. This movement accounts for 82.5 per cent of all movement in the last five years amongst ex-agricultural workers. This phenomenon may be traced to the outflow of workers from agriculture which occurs at this age,[8] (for 15 (24 per cent) of these workers, their last industrial change was out of agriculture). That is, the job change from agriculture often means both a move from tied housing, and a move into an urban area. This fact would appear to be sufficient to explain the lower degree of difference in the rate of mobility between age groups. As a

7. e.g. Jefferys op. cit.; Hathaway and Perkins op. cit.; Mackay et al. op. cit. p.229; Ministry of Labour Mobility between Industries and Jobs, Ministry of Labour Gazette, July, 1966, p. 379 ff.

8. This point is fully discussed in section 6.14.

result statistical analysis of this difference proved inconclusive.

Age also has an effect on distance moved, particularly amongst ex-agricultural workers (Table 7.5). Cross-tabulation of age by distance moved showed that of the 42 workers who moved less than ten miles, 38 (90.5 per cent) were aged over 40, which compares with 26 agricultural workers, of whom 17 (65 per cent) were aged 40 plus.

TABLE 7.5

Cross-tabulation of Age by Distance Moved

Ex-agricultural Workers

	Distance Moved				
Age Group	Less than 10 Miles	11-30 Miles	31-100 Miles	More than 100 Miles	Row Total	Row %
21 to 29	1	1	2	1	5	6.5
30 to 39	3	1	1	-	5	8.1
40 to 49	9	7	2	1	19	30.6
50 to 59	14	1	1	1	17	27.4
60 to 64	13	1	-	-	14	22.6
More than 65	2	1	-	-	3	4.8
Column Totals	42	12	6	3	63	
Column %	67.7	19.4	9.7	3.2		

Agricultural Workers

Distance Moved

Age Group	Less than 10 Miles	11-30 Miles	31-100 Miles
21 to 29	5	5	-
30 to 39	4	6	3
40 to 49	6	10	5
50 to 59	7	7	6
60 to 64	2	-	2
More than 65	2	2	1
Column Totals	26	30	17
Column %	33.3	38.5	21.8

Age Group	More than 100 Miles	Row Total	Row %
21 to 29	-	10	12.8
30 to 39	1	14	17.9
40 to 49	1	22	28.2
50 to 59	3	23	29.5
60 to 64	-	4	5.1
More than 65	-	5	6.4
Column Totals	5	78	
Column %	6.4		

Statistical analysis of the null-hypothesis, that there is no difference between age groups, seems to support, whilst saying nothing conclusive, the effect of age on the distance moved by ex-agricultural workers. Amongst agricultural workers the age effect is less well marked. There were 18 (82 per cent) aged over 40 who moved more than 31 miles.

7.06 The Effect of Marital Status on Mobility

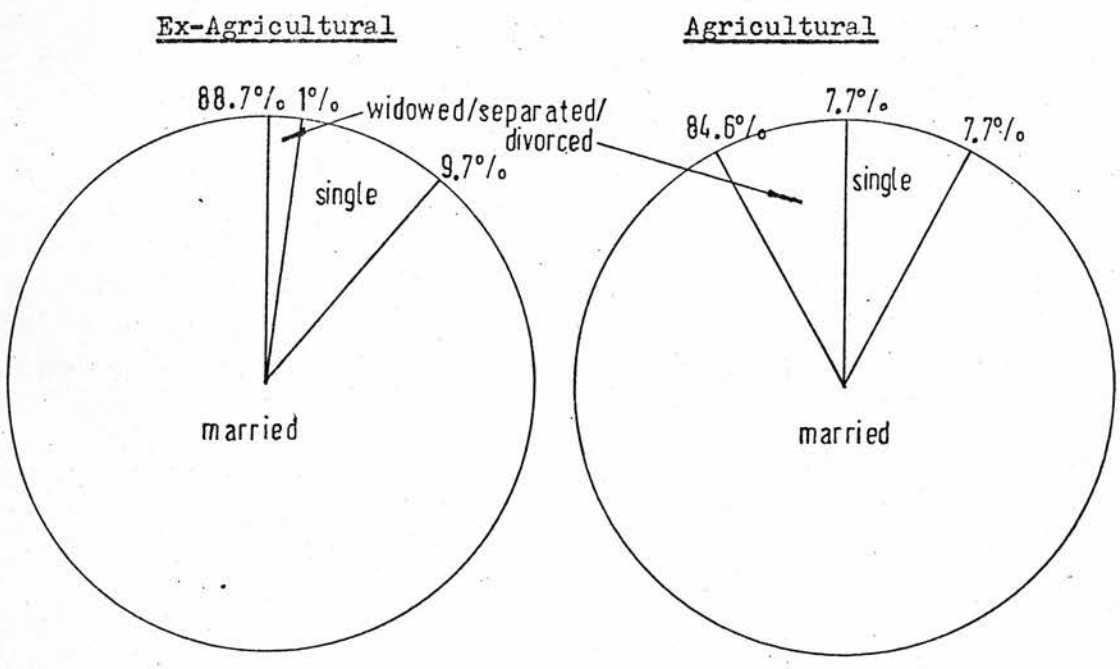
Previous studies indicated that family responsibilities tended to retard mobility,[9] because of the ties developed in the

9. e.g. Young, M. and Wilmott, P. Family and Kinship in East London, 1962; Sjaastad, L. D. The Costs and Returns of Human Migration, J. Polit. Econ. 70, supplement, 1962, p.320 ff.

community with schools, clubs, friends, etc. and also the increased costs, both monetary and social, of moving a family. However, the effects of family and age on mobility are often difficult to separate in practice, e.g. workers in their thirties and forties often also have children of school age. The breakdown of geographical mobility by marital status is given in Figure 7.5 below:

FIGURE 7.5

Marital Status of Geographically Mobile Workers



	No.	Percentage	No.	Percentage
Single	6	9.7	6	7.7
Married	55	88.7	66	84.6
Widowed/ Separated/ Divorced	1	1.6	6	7.7
	62	100.0	78	100.0

Table 7.6 shows the time of the last move cross-tabulated with age for workers currently married:[10]

TABLE 7.6

Cross-tabulation of Married Workers by Age and Time of Last Move

Ex-Agricultural

	Time of Last Move					
	Less than 3 Months	3 Months - 1 Year	1 - 5 Years	5 - 10 Years	More than 10 Years	Row Totals	Row %
21 to 29 Years	-	1	1	1	-	3	5.5
30 to 39 Years	-	-	1	2	2	5	9.1
40 to 49 Years	-	1	4	7	5	17	30.9
50 to 59 Years	1	1	5	2	7	16	29.1
60 to 64 Years	-	1	4	3	3	11	20.0
More than 65 Years	-	-	1	-	2	3	5.5
Column Total	1	4	16	15	19	55	
Column %	1.8	7.3	29.1	27.3	34.5		100.0

10. The 19 workers thus excluded exhibited a straightforward 'age effect': of the 11 workers who made their last move more than 5 years ago 10 were aged over 40.

Agricultural

	Less than 3 Months	3 Months - 1 Year	1 - 5 Years
21 to 29 Years	-	2	6
30 to 39 Years	2	1	5
40 to 49 Years	-	2	3
50 to 59 Years	-	-	5
60 to 64 Years	-	-	2
More than 65 Years	-	-	-
Column Total	2	5	21
Column %	3.0	7.6	31.8

Agricultural

Time of Last Move

	5 - 10 Years	More than 10 Years	Row Total	Row %
21 to 29 Years	1	-	9	13.6
30 to 39 Years	3	-	11	16.7
40 to 49 Years	5	11	21	31.8
50 to 59 Years	2	11	18	27.3
60 to 64 Years	-	-	2	3.0
More than 65 Years	-	5	5	7.6
Column Total	11	27	66	
Column %	16.7	40.9		100.0

Among the ex-agricultural workers, 34 (61.7 per cent) made their last move more than 5 years ago, and 29 of these workers were now aged over 40 years, which accounts for 53 per cent of the total married workers who were geographically mobile. However, the high proportion of these married workers who have moved in the last five years, even though they were over 40, must not be overlooked. There were 18 (86.5 per cent) in this category. This result is similar to the effect of age on mobility. No doubt this reflects the impact of the housing factor, since of the 18 workers just mentioned, 17 had left jobs which provided some form of tied housing. That is, a change of job necessitated geographical mobility. This late

mobility means that there is no conclusive evidence that the mobility of married ex-agricultural workers decreases with age.

The pattern amongst agricultural workers is somewhat different. The provision of tied housing makes for ease of movement of workers, even for those with a family. So there is a proportionally higher rate of movement among workers under 40 years. The ratios of farm workers who moved in the last five years to those in the longer period is 16 to 4, compared with 3 to 5 amongst ex-agricultural workers. Agricultural workers, once they reach 40 years old, also exhibit a different pattern of mobility from ex-agricultural workers. There were 34 (74 per cent) who had been on their present farm for more than five years. The 'age effect' on mobility is seen to be operative for agricultural workers. From this discussion it will be seen how difficult it is to distinguish the effects of marital status from age, community ties and positions of responsibility on a farm.

Finally, the effect of family size on mobility will be considered. For ex-agricultural workers[11], 29 (53 per cent) had families, including themselves, of four or more; 23 of these men were aged over 40. Of these men, 21 (72.5 per cent) had been in their present house for longer than five years. Of the 66 agricultural families, 30 (41.6 per cent) had four or more members, including the householder. Only 14 (47 per cent) had been in their present house for more than five years; evidence that family responsibilities need not retard movement if tied housing is available, and there is probably help with removals from the new employer. In 18 of the agricultural families the head of the household was aged over 40 years.

7.07 Propensity for Future Geographical Mobility

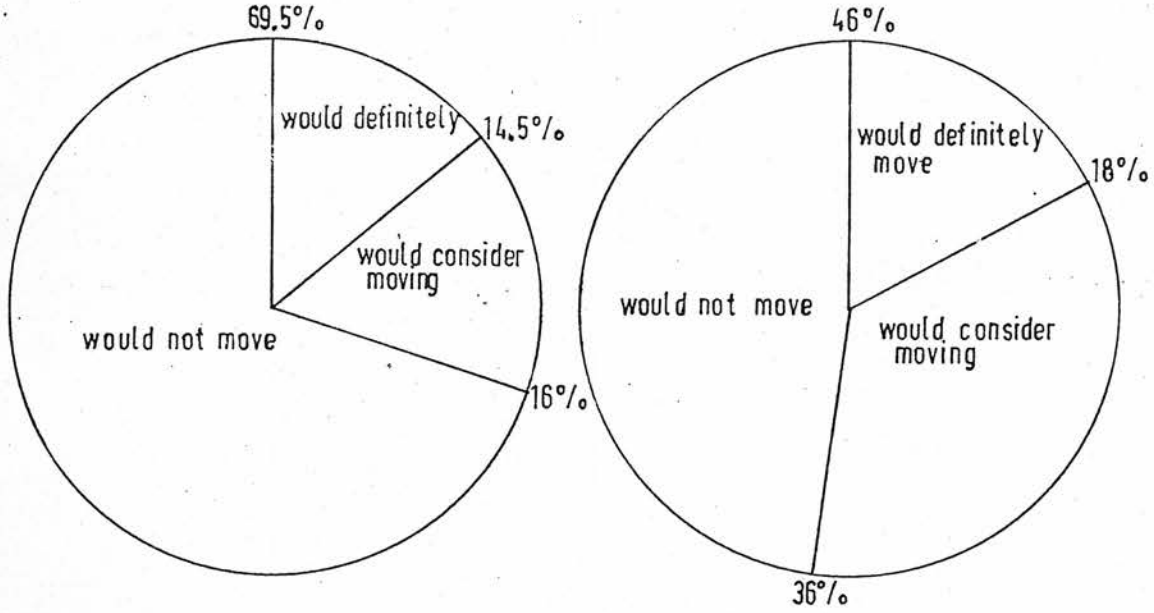
All workers, who had been geographically mobile, were asked for their reaction to the offer of a better paid job in another area.[12]

11. These statistics refer to married workers who have been geographically mobile.
12. See appendix 2.1 Q.17A.

Their answers are displayed in the diagram below:

FIGURE 7.6

Reaction to the Possibility of Future Geographical Mobility



Ex-Agricultural

Reaction	No.	Percentage	Cumulative Percentage
Would definitely move	9	14.5	14.5
Would consider moving	10	16.0	30.5
Would not move	43	69.5	100.0
	62	100.0	

Agricultural

Reaction	No.	Percentage	Cumulative Percentage
Would definitely move	14	18.0	18.0
Would consider moving	28	36.0	54.0
Would not move	36	46.0	100.0
	78	100.0	

Figure 7.6 shows that 54 per cent of the agricultural workers and 30.5 per cent of the ex-agricultural workers would either move or consider moving. Statistical analysis of the difference in reaction between the two groups of workers confirmed that the propensity to move is higher amongst agricultural workers. Even when faced by the possibility of redundancy the ex-agricultural worker showed greater reluctance to leave the area. Many of them said that they would take a less suitable job rather than move. Table 7.7 shows the attitude to mobility of all workers who did not consider that they would easily find another job in the present area.

TABLE 7.7

Reaction to Redundancy of All Workers Who Thought Another Local Job would be Hard to Find

	Reaction to Redundancy			
	Take a Less Suitable Job	Consider Moving	Stop Work Altogether	Row Totals
Ex-agricultural	18	19	11	48
Percentage	37.4	39.6	23.0	100
Agricultural	6	45	6	57
Percentage	10.5	79.0	10.5	100

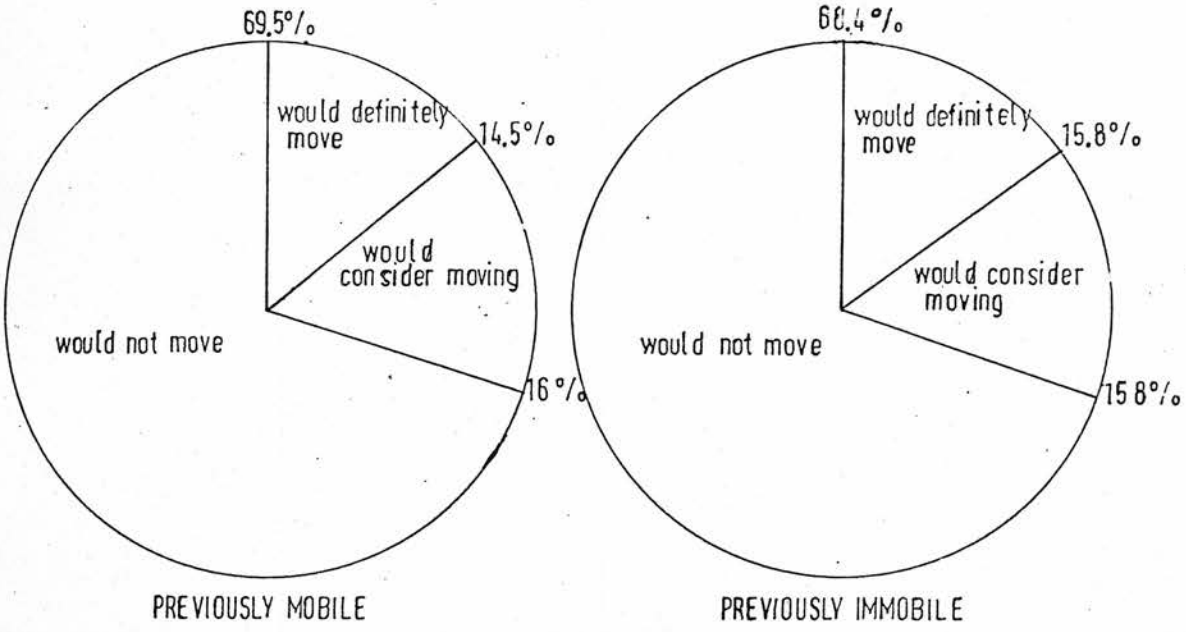
The difference between the two groups of workers is immediately obvious with 37 per cent of the ex-agricultural workers willing to take a less suitable job, and a further 23 per cent willing to face unemployment or early retiral.

Figure 7.7 compares the propensities to move of workers who had been previously immobile with those who had moved in the past.

FIGURE 7.7

A Comparison of Attitudes to Future Mobility

Ex-Agricultural



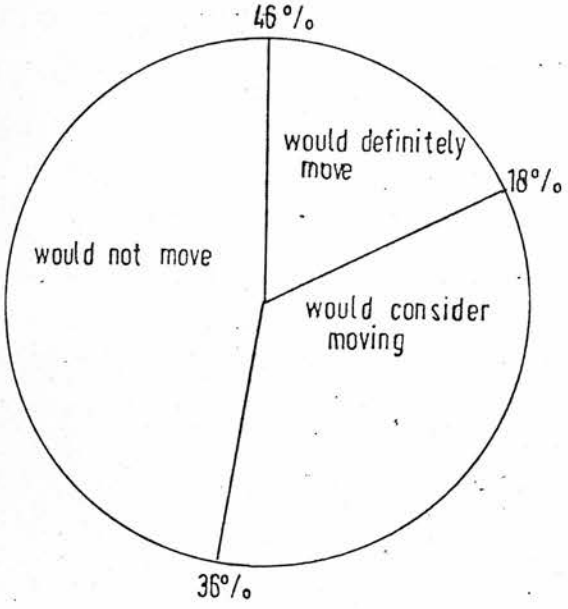
Previously Mobile

Reaction	No.	Percentage	Cumulative %
Would definitely move	9	14.5	14.5
Would consider moving	10	16.0	30.5
Would not move	43	69.5	100.0
	62	100.0	

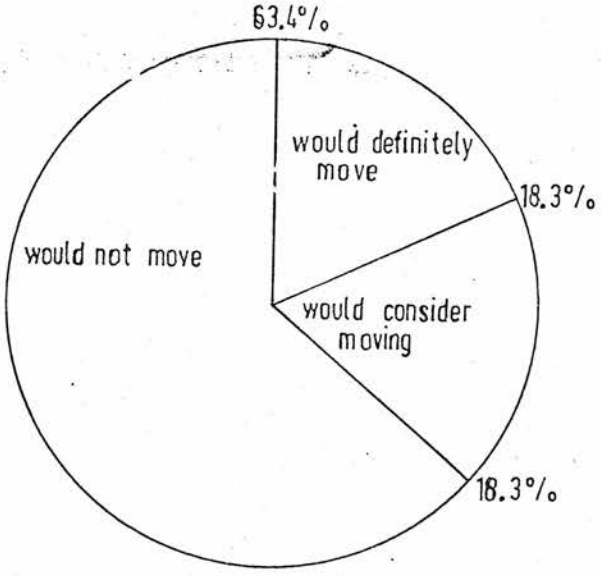
Previously Immobile

Reaction	No.	Percentage	Cumulative %
Would definitely move	6	15.8	15.8
Would consider moving	6	15.8	31.6
Would not move	26	68.4	100.0
	38	100.0	

Agricultural



PREVIOUSLY MOBILE



PREVIOUSLY IMMOBILE

Previously Mobile

Reaction	No.	Percentage	Cumulative %
Would definitely move	14	18	18
Would consider moving	28	36	54
Would not move	36	46	100
	78	100.0	

Previously Immobile

Reaction	No.	Percentage	Cumulative %
Would definitely move	4	18.3	18.3
Would consider moving	4	18.3	36.6
Would not move	14	63.4	100.0
	22	100.0	

It was hoped to establish whether previous experience of geographical mobility increased the propensity to move. The results differed for the two groups of workers; although for neither group of workers was the result conclusive. Amongst ex-agricultural workers propensity to move seemed little affected by past experience. By comparison, agricultural workers who had moved in the past showed a much higher propensity for future movement.

7.08 Conclusion and Summary of Findings

In the course of the examination of the geographical mobility of this group of 200 workers it has been established that:-

1. Movement is largely over short distances for manual workers. Agricultural workers moved greater distances than ex-agricultural workers.

2. There was no conclusive evidence that workers who moved greater distances gained substantially higher wages. The strongest degree of association between distance moved and increases gained was for ex-agricultural workers.

3. Agricultural workers' geographical mobility was reduced when age and marital status were taken into account, although family size, in itself, did not necessarily retard mobility. Mobility rates for agricultural workers under 40 years old were higher than those for ex-agricultural workers. Ex-agricultural workers over 40 years old were much more mobile. Their number closely reflects the number who left agriculture at this age, and who therefore had to change their house.

4. Distance moved, especially by ex-agricultural workers, declined with age.

5. Propensity for future movement was markedly less amongst ex-agricultural workers than amongst agricultural workers, even when the ex-agricultural worker was faced by the possibility of redundancy in his present area. Agricultural workers' previous experience of movement appeared to exert a positive influence on the willingness to move in the future. There was no such detectable effect amongst ex-agricultural workers.

Many of the findings outlined above are supported by the findings of similar surveys amongst manual workers.[13]

13. e.g. Hathaway and Perkins op. cit; Mackay et al. op. cit; Palmer op. cit; Jefferys op. cit.

CHAPTER 8

INFORMATION ON OTHER ASPECTS OF THE WORK FORCE - (PART I)

8.01 Introduction

This chapter deals with socio-economic factors relating to the worker's job; for example, length of time in the labour force, pay and conditions, union membership, travel to work and the use made of job information channels.

8.02 Time in the Labour Force

To calculate the period a worker has been a member of the potential labour force a cross-tabulation showing present age by age of leaving school will be used. This calculation takes no account of absence from the civilian work force through military service or ill-health, etc., as no records are available. However, statistics of the workers' last two jobs indicate that:

1. A very high proportion, 72 per cent to 81 per cent, of the workers moved immediately to their next job.

2. Amongst workers temporarily out of work, periods of unemployment tended to be relatively short.

3. Only four workers were out of work for periods longer than one year, and none of these was unemployed for longer than 18 months.

From this one might conclude that the workers in the sample who were interviewed had suffered little unemployment in their working lives. None might be classed as 'secondary workers'.[1]

1. Wilcock, R. C. The Secondary Labour Force and the Measurement of Unemployment, in The Measurement and Behaviour of Unemployment, 1957.

TABLE 8.1

Number of Jobs Held by Two Groups of Workers

	4 or More Jobs	3 Jobs	2 Jobs	1 Job	No Previous Job
Ex-Agricultural Workers	56	18	17	9	-
Agricultural Workers	53	12	14	10	11
Column Total	109	30	31	19	11

There is no evidence from Table 8.1 to suggest that either group of workers changes jobs more frequently than the other. Analysis by chi-square test showed that it was probable that there was no difference between the two groups or in the number of jobs held.

By cross-tabulating present age with age of leaving school and the number of jobs held it is possible to calculate the frequency distribution of the average duration of workers' jobs. Because the intervals used for the duration of jobs were of unequal length, these results are presented in the form of an histogram showing the frequency density for each group.[2]

It will be seen from these diagrams, and from Tables 8.2 to 8.4 below, that the distribution of time spent in each job was similar for the two groups of workers.

2. See appendix 4.1.

TABLE 8.2

Time Spent in the Labour Force by Agricultural Workers According to Age on Leaving School

Age on Leaving School	Time Spent in Labour Force: Less than 5 Years	5 - 14 Years	15 - 24 Years	25 - 34 Years
Under 14 Years	-	-	2	14
14 Years	2	4	5	9
15 Years	4	11	9	1
16 Years	-	1	-	-
More than 17 Years	1	1	-	-
	7	17	16	24

	35 - 44 Years	45 - 49 Years	50 Plus Years	Row Total
Under 14 Years	11	3	6	36
14 Years	13	1	-	34
15 Years	2	-	-	27
16 Years	-	-	-	1
More than 17 Years	-	-	-	2
	26	4	6	100

TABLE 8.3

The Time Spent in Work Force by Ex-Agricultural Workers According to Age on Leaving School

Age on Leaving School	Time Spent in Labour Force: Less than 5 Years	5 - 14 Years	15 - 24 Years	25 - 34 Years
Under 14 Years	-	-	-	8
14 Years	-	2	5	14
15 Years	1	10	5	2
16 Years	1	1	2	-
17 Plus	-	-	1	1
	2	13	13	25

	35 - 44 Years	45 - 49 Years	50 Plus Years	Row Total
Under 14 Years	7	10	2	27
14 Years	14	8	2	45
15 Years	2	-	-	20
16 Years	2	-	-	6
17 Plus	-	-	-	2
	25	18	4	100

TABLE 8.4

Absolute, Percentage and Cumulative Distribution by Average Duration of Job[3]

		1-2.49 Years	2.5-4.9 Years	5-7.49 Years	7.5-9.9 Years
Ex-Agricultural Workers	No.	1	15	14	34
	%	1	15	14	34
Accumulative	%	1	16	30	64

		10 - 14.9 Years	15 - 19.9 Years	20 Plus Years
	No.	25	7	4
	%	25	7	4
Accumulative	%	89	96	100

		1-2.49 Years	2.5-4.9 Years	5-7.49 Years	7.5-9.9 Years
Agricultural Workers	No.	7	13	15	29
	%	7.9	14.6	16.9	32.6
Accumulative	%	7.9	22.5	39.4	72.0

		10 - 14.9 Years	15 - 19.9 Years	20 Plus Years
	No.	17	2	6
	%	19.2	2.2	6.6
Accumulative	%	91.2	93.4	100.0

Tables 8.2 to 8.4 shows that a very high proportion of the workers in both groups, 70 per cent and 72 per cent respectively, left school before their fifteenth birthday. The much higher proportion of ex-agricultural workers who have been in the labour force longer than 45 years reflects their age distribution,

3. 11 agricultural workers are excluded since they had never changed jobs.

especially the number of workers aged over 60 years. Twenty-two per cent of the ex-agricultural workers were in this category compared with ten per cent of the agricultural workers.

These figures also reflect the effect of the raising of the school leaving age. Amongst agricultural workers aged over 40 only ten per cent of the 72 workers had not left school by the age of 15. By contrast only 7.5 per cent of the 15 workers under 30 had left school by their fifteenth birthday.

The same point is made by cumulative percentages plotted in diagrammatic form.[4] It should be noted that although the distributions are similar, the distribution for ex-agricultural workers is skewed slightly to the right, indicating that ex-agricultural workers tend to remain in their jobs longer than agricultural workers.[5]

8.03 Hours, Pay and Fringe Benefits

It is generally recognised that agricultural workers receive wages relatively lower than other groups of workers.[6] The survey, whilst supporting this, also showed, in a detailed distribution of take-home pay, that the contrast is not clear cut.

4. See appendix 4.2

5. See also Simmons, J. C. An Analytical Study of Labour Ph.D. Thesis, University of London, 1966, 6.3.

6. e.g. in the New Earnings Survey published in the Scottish Abstract of Statistics No. 1, Scottish Office, H.M.S.O., 1971, the following figures were given (Table 58, p.69) for average gross earnings for manual workers over 21:

Agriculture, Fishery & Forestry	Construction	Public Administration	All Industries
£21.1	£26.5	£20.8	£25.7

Table 8.5 and appendix 4.3 show the distribution of the normal take-home wage:[7]

TABLE 8.5

Distribution of Take-Home Pay for the Two Groups of Workers

	Level of Pay				
	Less than £10 per Week	£10 - 12.49 p.w.	£12.50 - 14.99 p.w.	£15 - 17.49 p.w.	£17.50 - 19.99 p.w.
Agricultural Workers					
Total	4	1	6	33	28
Cumulative %	4	5	11	44	72

	£20 - 24.99 p.w.	£25 - 29.99 p.w.	More than £30.00 p.w.
Total	24	2	2
Cumulative %	96	98	100

	Less than £10 per Week	£10 - 12.49 p.w.	£12.50 - 14.99 p.w.	£15 - 17.49 p.w.	£17.50 - 19.99 p.w.
Ex-Agricultural Workers					
Total	-	1	9	32	16
Cumulative %	-	1	10	42	58

	£20 - 24.99 p.w.	£25 - 29.99 p.w.	More than £30.00 p.w.
Total	22	12	8
Cumulative %	80	92	100

There was a considerably higher proportion of ex-agricultural workers than agricultural workers taking home more than £20 per week (a ratio of 42 to 28 workers). Twenty per cent of ex-agricultural

7. The weekly wage, including all normal overtime payments and bonuses, less all normal deductions for tax, pension schemes, etc.

workers were taking home more than £25, compared with four per cent of the agricultural workers. Statistical analysis of this difference indicated that this earnings gap was significant. However, there is little difference between the two groups of workers taking home less than £17.50 per week: 42 per cent of the ex-agricultural workers compared with 44 per cent of the agricultural workers.

That there was a very real difference in the distribution of take-home pay between the two groups of workers has been demonstrated by the chi-squared test. This difference is further confirmed by the fact that 42 per cent of the ex-agricultural workers were able to take home more than £20 per week, compared with 28 per cent of the agricultural workers. However, there is the equally large group of ex-agricultural workers (42 per cent) whose wages do not differ significantly from a similar sized group of agricultural workers. Further these agricultural workers are receiving considerable fringe benefits. The fact that over 40 per cent of the workers in both groups receive less than £17.50 is an indication of a large section of workers who are relatively poorly paid.

Hours Worked: Not only is the pay of agricultural workers generally low relative to wages in other sectors, but their normal working hours are longer:[8] a difference confirmed by this survey.

8. In the year 1969-70 dairymen in Scotland worked on average 50.6 hours per week, tractormen worked 44.4 hours. The statutory hours for which the basic minimum was to be paid were 48.0 and 45.6 hours respectively. This figure for tractormen included 3 hours garage time. Figures taken from Scott. agric. Econ. 21, H.M.S.O. 1971, Table 25, p.59. In October, 1969, the following hours were worked by manual workers in certain industries: manufacturing 45.7; public administration 43.8; all industries (except agriculture) 46.5. Department of Employment Gazette 80, 1972, Table 122, p.1070.

From Appendix 4.4 it is evident that a much higher proportion of ex-agricultural workers than agricultural workers now work less than 44 hours per week[9] (90 per cent and 70 per cent respectively). Also a far higher proportion of agricultural workers (16 per cent) worked more than 50 hours per week, compared with four per cent of the ex-agricultural workers. Furthermore, none of the ex-agricultural workers worked more than 54 hours, whilst four per cent of the agricultural workers did.

The appreciable proportion of agricultural workers engaged in working such a long basic week is a reflection of the 'customary hours' worked by people in supervisory positions[10] (i.e. shepherds, grieves, dairymen and stockmen). It also reflects the difficulty of organising a basic week when livestock require seven day care. Only on the largest of present farms (e.g. those employing several dairymen) can they even approach a five-day working week. Only one dairy herd of this type was encountered in the survey. Obviously there are not the same demands upon tractormen and general workers for seven day attendance. Therefore it is easier to reduce their hours to those ruling in other industries.

Tables 8.6 and 8.7 show cross-tabulations of the basic hours worked by the number of hours overtime in the normal week for single and married workers. By its very nature, agricultural work has seasonal peaks. This is reflected in the number of agricultural interviewees who said that their overtime was too variable for them to report it. Seventy-one per cent of the single agricultural

9. The basic week was the number of hours worked for the take-home pay, less normal overtime payments.

10. See for example the notes on customary hours in Scott. agric. Econ. op. cit. p.59.

workers and 61.8 per cent of the married workers said this, compared with 47.5 per cent and 36.0 per cent respectively of the ex-agricultural workers.

TABLE 8.6

Distribution of Basic Hours Worked By Number of Hours Overtime for Single Workers[11]

Agricultural Workers

Hours at Overtime Rates	Basic Hours: 40-44 Hours	45-49 Hours	50-54 Hours	More than 55 Hours	Total (24)	%
None	0	0	1	0	1	4.2
Less than 2 hours	1	0	0	0	1	4.2
2 to 4 hours	2	0	0	0	2	8.3
4 to 6 hours	1	0	0	0	1	4.2
6 to 8 hours	0	1	0	0	1	4.2
More than 10 hours	1	0	0	0	1	4.2
Too variable/D.K.	13	3	0	1	17	70.8

Ex-Agricultural Workers

Hours at Overtime Rates			T (21)	
None	4	1	5	23.8
2 to 4 hours	1	0	1	4.7
4 to 6 hours	3	0	3	14.3
More than 10 hours	2	0	2	9.5
Too variable/D.K.	10	0	10	47.5

D.K.: Don't know

11. Includes those who are now widowed, separated or divorced.

TABLE 8.7

Distribution of Basic Hours by Number of Hours Overtime for Married Workers

Agricultural Workers

Hours at Overtime Rates	Basic Hours: Less than 20 Hours	40-44 Hours	45-49 Hours	50-54 Hours	More than 55 Hours	Total (76)	%
None	0	3	3	5	1	12	15.8
2-4 hours	0	2	0	0	0	2	4.0
4-6 hours	0	2	1	0	0	3	3.9
6-8 hours	0	1	0	0	0	1	1.3
8-10 hours	0	2	1	0	0	3	3.9
More than 10 hours	0	6	2	0	0	8	10.5
Too variable/ D.K.	0	36	3	7	1	47	61.8

Ex-Agricultural Workers

Hours at Overtime Rates	Basic Hours: 30-39 Hours	40-44 Hours	45-49 Hours	50-54 Hours	Total (79)	%
None	1	20	1	3	25	31.6
Less than 2 hours	0	3	1	0	4	4.1
2-4 hours	0	1	0	0	1	1.3
4-6 hours	0	6	0	0	6	12.0
6-8 hours	0	2	0	0	2	2.0
8-10 hours	0	1	0	0	1	1.0
More than 10 hours	0	11	0	0	11	11.0
Too variable/ D.K.	0	25	3	1	29	29.0

D.K. Don't Know

It is noticeable that there is a lower proportion of ex-agricultural workers actually working overtime. In fact 30 per cent of them, taking Tables 8.6 and 8.7 together, work no regular or seasonal overtime, compared with 13 per cent of the agricultural workers. Possibly this helps to explain the high proportion of the ex-agricultural workers with low take-home pay.[12] The recognised way for manual workers to boost their weekly earnings is by long overtime periods and bonus schemes. Where this is not possible take-home pay tends to be low. This possibility was confirmed by conversations during the course of the survey interviews. Some workers had little or no opportunity to do overtime in their present job and regretted this.

Fringe Benefits: The table below sets out the fringe benefits of the workers in the survey:

TABLE 8.8

Distribution of Fringe Benefits Received by Workers in the Survey

Fringe Benefits	Agricultural Workers	Ex-Agricultural Workers
Electricity	5	0
Milk, Potatoes	87	0
Pension	7	32
Sick Pay	68	76
Housing	77	4
Transport	3	17

Table 8.8 shows the considerable non-pecuniary benefits received by many farm workers. A high proportion of them receive milk, potatoes and subsidised, or free housing. Five of them are

12. 42% received less than £17.50 per week take-home pay.

seen to receive free electric power. There is no comparable level of fringe benefits amongst ex-agricultural workers. Only four live in tied housing, and none of them received food-stuffs or free electricity. A higher proportion were given free transport, - a reflection of the number of people either in managerial or sales representative positions.

A much higher proportion of ex-agricultural workers were members of private pension schemes, and a slightly higher proportion received sick pay from their employers. The impression given by many agricultural workers was that both the amount and period of such payments were uncertain. (The questionnaire does not reveal this since there was no question on the time over which fringe benefits were received). This uncertainty is a reflection of the fact that for most agricultural workers there is no statement of terms of employment when starting the job.[13]

8.04 Workers' Evaluation of Job Conditions

Questions five and six on the questionnaire were designed to determine the workers' assessment of job conditions and prospects. They were asked for their opinion of their pay, hours, job security, noise level, and required level of skill.

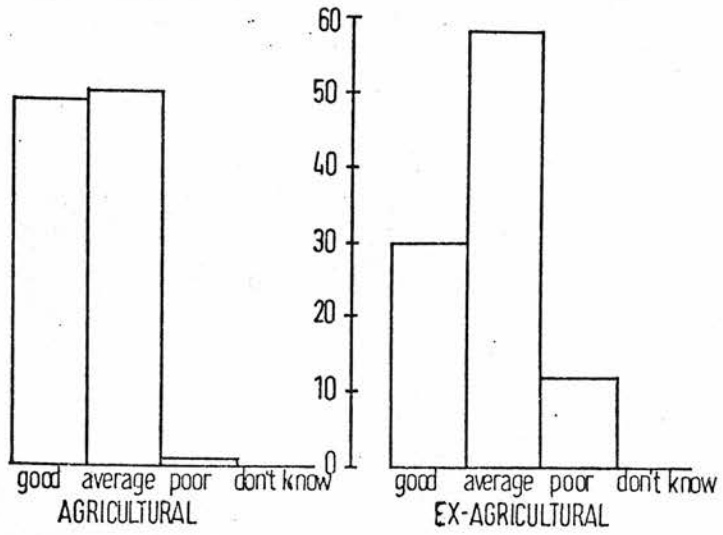
13. For the controversy over this issue see Newby, H. The Low Earnings of Agricultural Workers: A sociological approach, J. agric Econ. 23, 1972, p. 15 ff.; Hodsdon, D. F. Labour Relations in Agriculture, University of Newcastle Agricultural Adjustment Unit, T.P. 13, 1970.

It must be emphasised that these opinions were subjective. No attempt was made to evaluate the individual's response by the use of some independent scale, e.g. tests of workers' skills in carrying out certain set tasks. Such analysis was beyond both the scope and purpose of the survey. However, even accepting this caveat and the difficulties of using such categories as 'average', useful comparisons can be made of the reactions of the groups of workers. Fortunately, cross-checks with absolute data are possible for a number of factors, e.g. the range of opinion on the satisfactoriness of wages can be compared with actual take-home pay. The results are displayed in a series of histograms with discussion adjoining.

Pay and Hours: Comparison of workers' reaction to the standard of pay reveals a much higher level of satisfaction amongst agricultural workers than among ex-agricultural workers (Fig. 8.1). Only one agricultural worker considered that his pay was poor and 49 stated that their wage was 'good'; compared with 12 and 30 respectively for ex-agricultural workers.

FIGURE 8.1

Workers' Opinion of the Standard of Pay



The similar, large proportion of both groups earning less than £17.50 per week has been noted.[14] Also a much higher proportion of ex-agricultural workers were taking home more than £25 per week.[15]

It might be asked why agricultural workers show a higher satisfaction with their wage. No definite answer can be given but two possible suggestions can be made. Firstly, this reaction may reflect the lack of information available to the farm worker on such matters as wage rates and comparable earnings.[16] Also the level of unionisation is low[17] so that there is no collective urge to generate dissatisfaction with the present wage. Secondly, the worker leaving agriculture is faced by many new costs for housing and food which he may never have had before. He will feel very strongly the inadequacy of a wage, which may well be below £17.50 per week to meet these new demands.[18]

A comparison of opinions on hours worked in Fig. 8.2 discloses that agricultural workers were aware that they worked much longer hours than other sectors. Thirteen per cent of the agricultural workers considered that their hours were too long.

14. 44% and 42% respectively.

15. Almost 25% of the ex-agricultural workers took home more than £25 per week.

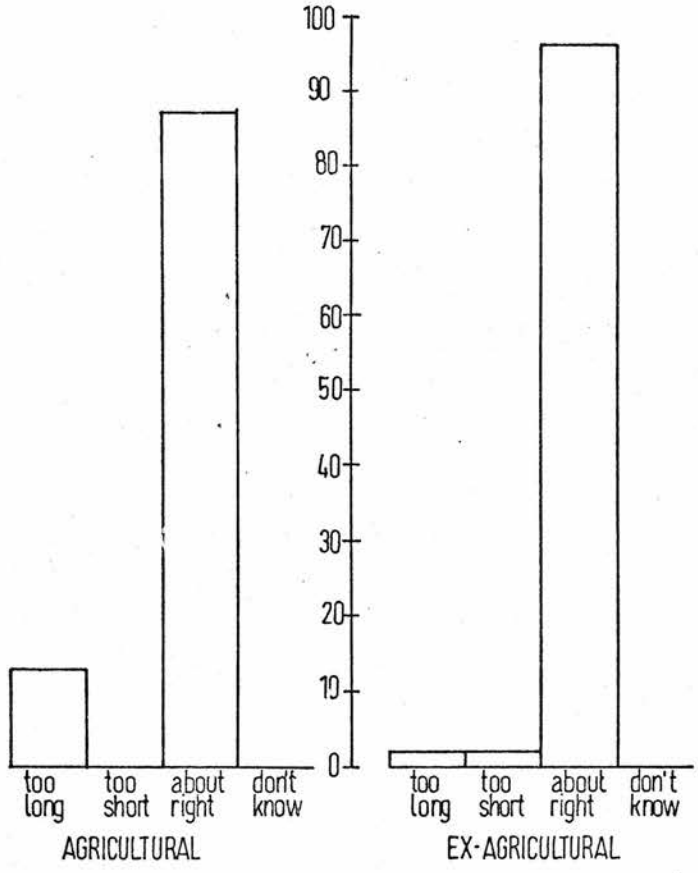
16. Robinson, D. Wage Drift, Fringe Benefits and Manpower Distribution, O.E.C.D., 1968: records that even within a single industrial plant there may be little information on comparable wage rates, e.g. p. 153 ff.

17. Only 4 agricultural workers were in a union and, as on 16th March, 1972, total membership of the Agriculture and Forestry Section of the Transport and General Workers' Union was 50 (in Fife).

18. See section 6.13 for a discussion of this point.

FIGURE 8.2

Workers' Opinion of Hours Worked



Job Security and Promotion: Fig. 8.3 shows that ex-agricultural workers were marginally less secure in their present jobs. However, these figures must be treated with caution as they may be biased. For example, one firm visited in the course of the survey was about to adopt a new process. This development had already caused some redundancies, which workers, especially those close to retirement, thought would increase in number.

FIGURE 8.3

Workers' Opinion of Job Security

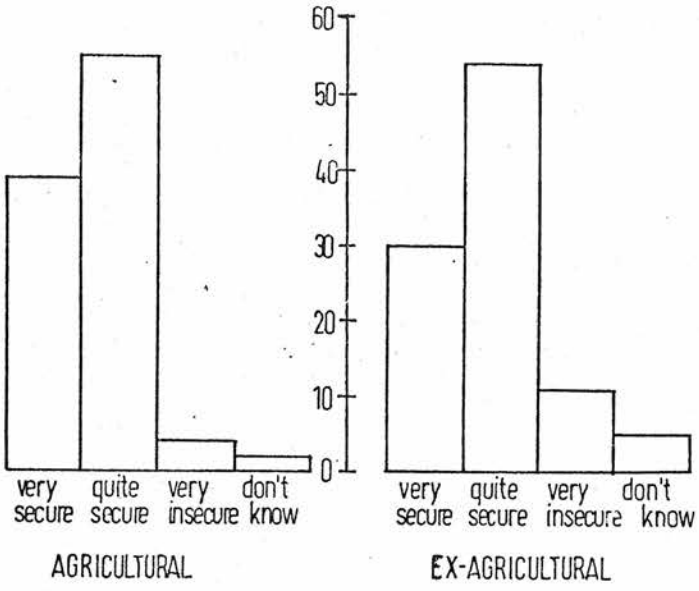
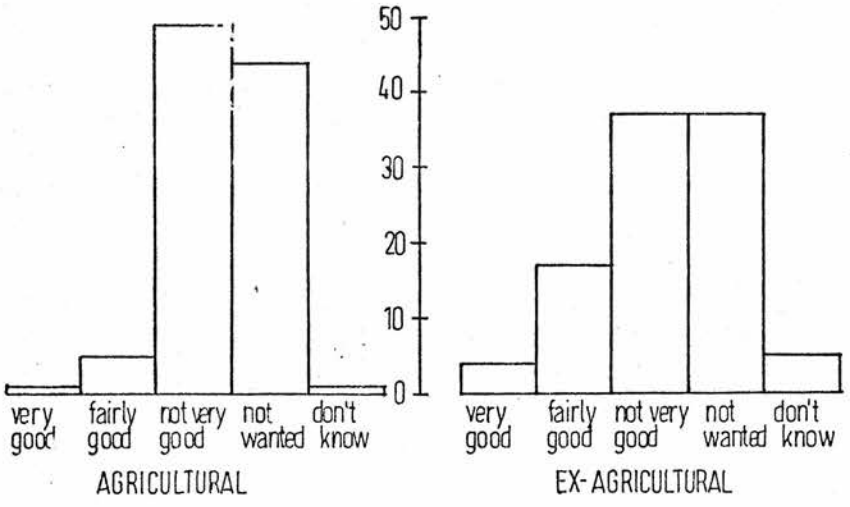


Figure 8.4 shows that only six agricultural workers, compared with 21 ex-agricultural workers, rated their chance of promotion as reasonable. Forty-four farm workers said that they were not looking for promotion. This figure includes such men as grieves, who have reached the highest position possible for a farm employee. This 'resigned' attitude is a reflection of the lack of a long promotional ladder up which the ambitious worker can move. It is one of the major and peculiar problems of agriculture which makes the retention of suitable young men difficult. In other industries, work forces tend to be larger and the occupational hierarchy of each sector has more tiers.

FIGURE 8.4

Workers' Opinion of Opportunity for Promotion

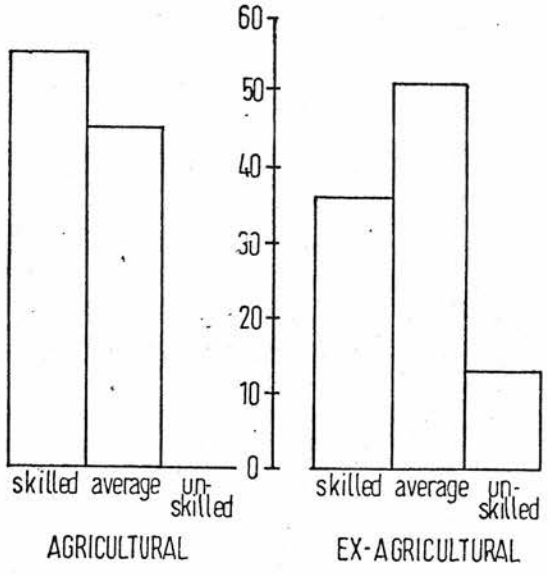


Skill, Intensity and Variety of Work: Fig. 8.5 shows that the agricultural worker rated the level of skill required in his job very highly. A much larger proportion than amongst ex-agricultural workers, where 13 per cent gave their job as unskilled, and only 36 per cent rated their job as skilled. Cross-tabulation showed that this reflected the number of ex-agricultural workers going into labouring jobs of various descriptions,[19] and the high level of expertise now required in farm work, both arable and livestock.

19. 19 workers moved from agriculture into miscellaneous labouring jobs.

FIGURE 8.5

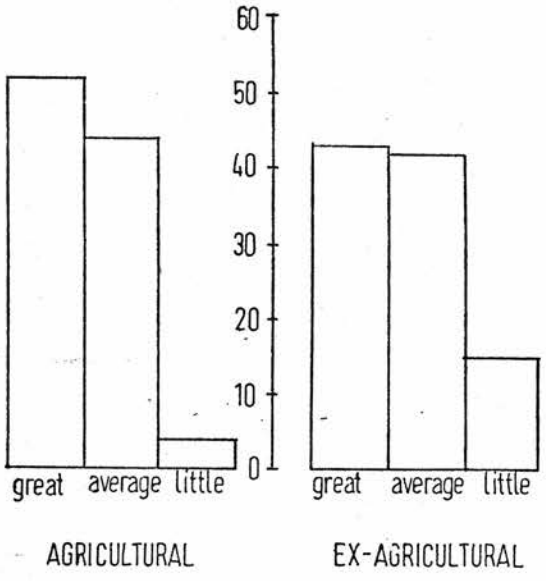
Workers' Opinion of Level of Skill Required



The level of skill thought to be necessary was also reflected in workers' replies concerning the amount of concentration they needed to do their work (Fig. 8.6). Over 50 per cent of the agricultural workers said that their job required great concentration, and only four per cent rated their level of concentration as low. For ex-agricultural workers this figure was 15 per cent, which is related to the number of workers now doing labouring jobs. Certainly such activities as handling an intensive dairy unit or pea-vining machine would seem to require a high level of concentration.

FIGURE 8.6

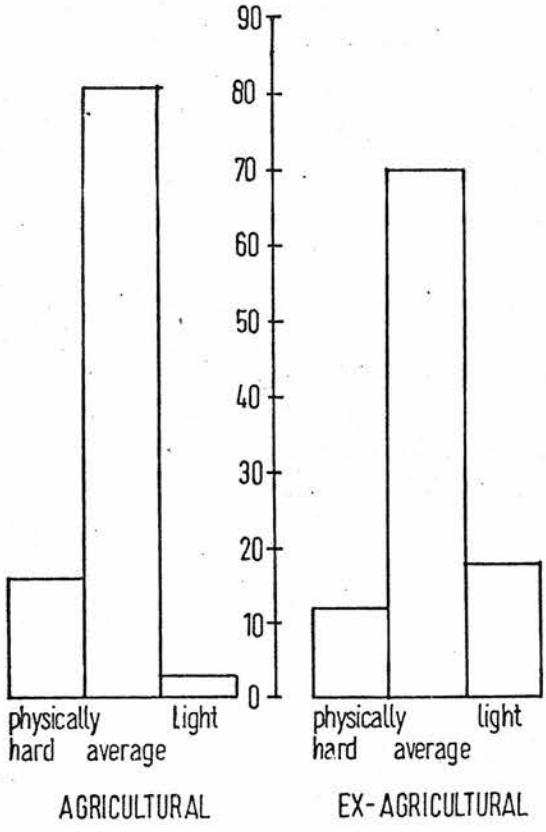
Workers' Opinion of Level of Concentration Required



These marked differences in the levels of skill and concentration required are not seen in either the degree of physical effort required or the variety of the job routine. Much of the heaviest work on the farm has been taken over by tractor-mounted implements, yet jobs remain which require a sustained level of physical effort over long periods, e.g. in the use of parlour systems. Also, there was a much higher proportion of ex-agricultural workers doing light jobs, (Fig. 8.7).

FIGURE 8.7

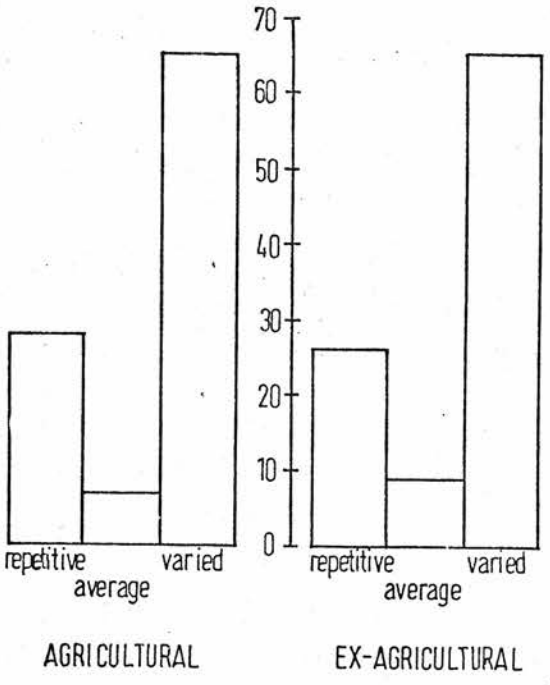
Workers' Opinion of Physical Effort Required



There was virtually no difference in the variety of jobs performed by the two groups of workers. It was mainly farm workers looking after livestock who found their job repetitious. This group accounted for 71 per cent of the agricultural workers in this category. On the other hand grieves and tractormen accounted for 68 per cent of the agricultural workers who found their job varied.

FIGURE 8.8

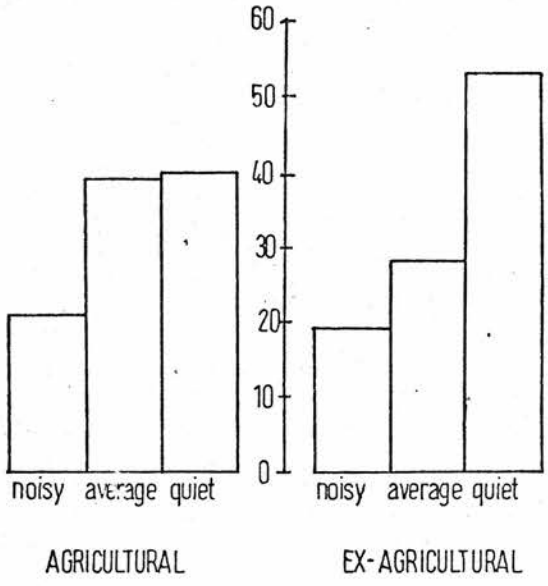
Workers' Opinion of Level of Variety in Job Routine



Noise and Dirt Level: There was no significant difference in opinions on noise levels at place of work between these two groups of workers (Fig. 8.9). A slightly higher proportion of agricultural workers found their job noisy (21 per cent), 56 per cent of these workers were tractormen. Of the 53 per cent of the ex-agricultural workers regarding their job as quiet, 58 per cent were in the two groups 'miscellaneous labouring' and 'groundstaff and forestry'.

FIGURE 8.9

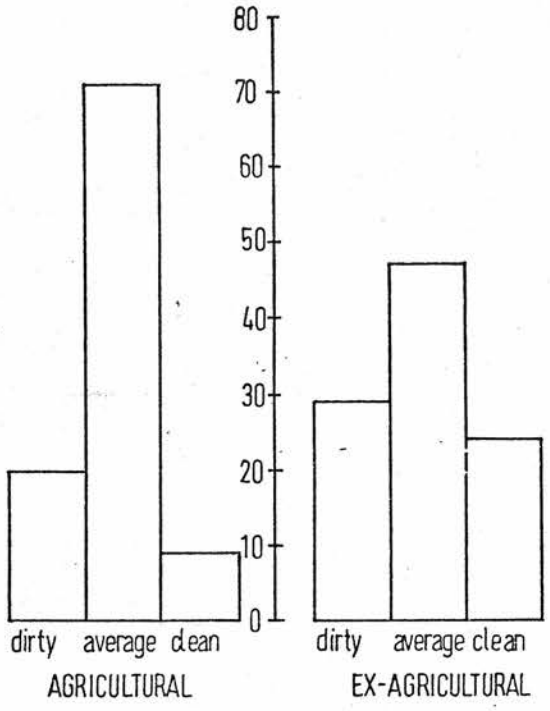
Workers' Opinion of Level of Noise



Amongst agricultural workers, there appeared to be a lower proportion of what were considered to be 'dirty jobs'. In fact, possibly the variety of routines performed by a worker in the course of a year, each with its own dirt level, explains the number rating the dirt level as average, e.g. singling root crops is relatively clean and harvesting grain may be extremely dusty. Almost half of the livestock workers rated their job as 'dirty'. Labourers and people involved in processing industries accounted for 55 per cent of the dirty jobs amongst ex-agricultural workers. Forty-four per cent worked in the storage and processing of grain, which produced a very high dust level (Fig. 8.10).

FIGURE 8.10

Workers' Opinion of Level of Dirt



8.05 The Extent of the Market

The distance over which workers travelled to work was expected to be small. That is, the local labour market in which workers look for employment and in which employers recruit will be limited in size. There were a number of reasons for this presupposition:

1. Amongst agricultural workers the provision of tied housing and the nature of the job, especially in the case of the herdsmen, restricts the distance travelled to work.

2. Fife is essentially a rural area. Public transport consists of a train service round the coast to Methil and a main line running north-east to the Tay Bridge. There is also a 'bus service

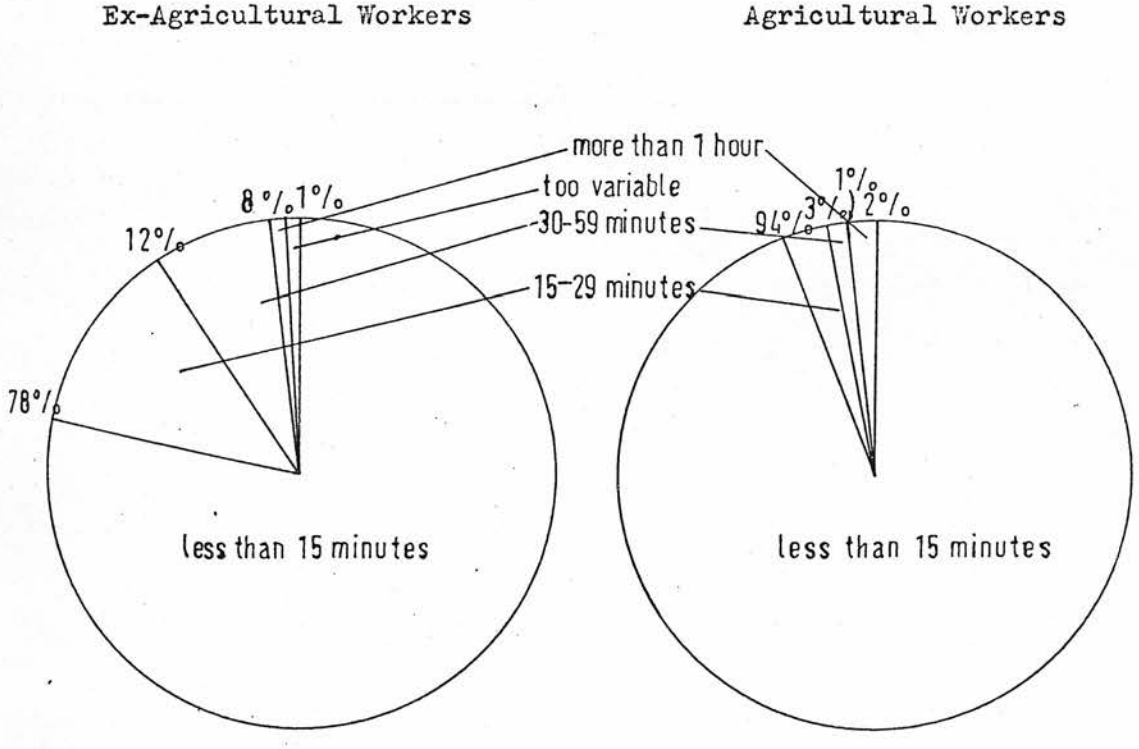
which faces the problems common to rural services of low passenger volume and the need to connect scattered villages along narrow roads.

3. Evidence from previous surveys indicates that manual workers tend to commute shorter distances than other types of workers.[20]

These presuppositions were amply borne out by the survey. Out of the total of 200 workers interviewed only 26 travelled more than 15 minutes to work.[21] The Predominance of short journeys to work (data refers to single journeys only) is emphasised by Fig. 8.11.

FIGURE 8.11

Time Taken to Travel to Work



20. Thompson, J. H . Commuting Patterns of Manufacturing Employees, Industr. Lab. Relat. R. 10, 1956, p.70 ff.; Mackay, D. I. et al. Labour Markets Under Different Employment Conditions, 1971; Robinson op. cit.

21. One ex-agricultural worker had a variable travelling time.

They show a proportional representation of the time taken to travel to work.

It is instructive to compare these figures with the 1966 figures for a 'small town' in Scotland, which show 92.5 per cent of the males living within two miles of their work. In Glasgow, 81 per cent of male workers lived within five miles of their work.[22] The findings of the Fife survey are summarised in Table 8.9.

TABLE 8.9

Time Taken on Journey to Work

	Workers	
Journey to Work	Ex-Agricultural	Agricultural
Less than 15 minutes	78	94
15 - 29 minutes	12	3
30 - 59 minutes	8	1
More than an hour	1	2
Too variable	1	0

The fact that so many agricultural workers live in or near their place of work is further supported when it is realised that 77 per cent of these workers walk to work.

Tables 8.10 and 8.11 link the means of reaching work with the time taken to work. They show that a higher proportion of ex-agricultural workers used either their own or company transport to reach work (69 per cent). It will be seen that neither group of workers used public transport very much for journeys to work.

22. Mackay op. cit. p. 247 ff.

TABLE 8.10

Cross-tabulation of Time Taken to Work by Means of Transport for Ex-agricultural Workers

Type of Transport Used	Time Taken to Work: Too Variable	Up to 15 min.	15-29 min.	30-59 min.	1 hr. or more	Row Total
Own Transport	0	41	7	4	0	52
Lift	1	2	0	0	0	3
Public Transport	0	4	1	2	0	7
Company Transport	0	12	3	1	1	17
Walk	0	19	1	1	0	21
Column Total	1	78	12	8	1	100

TABLE 8.11

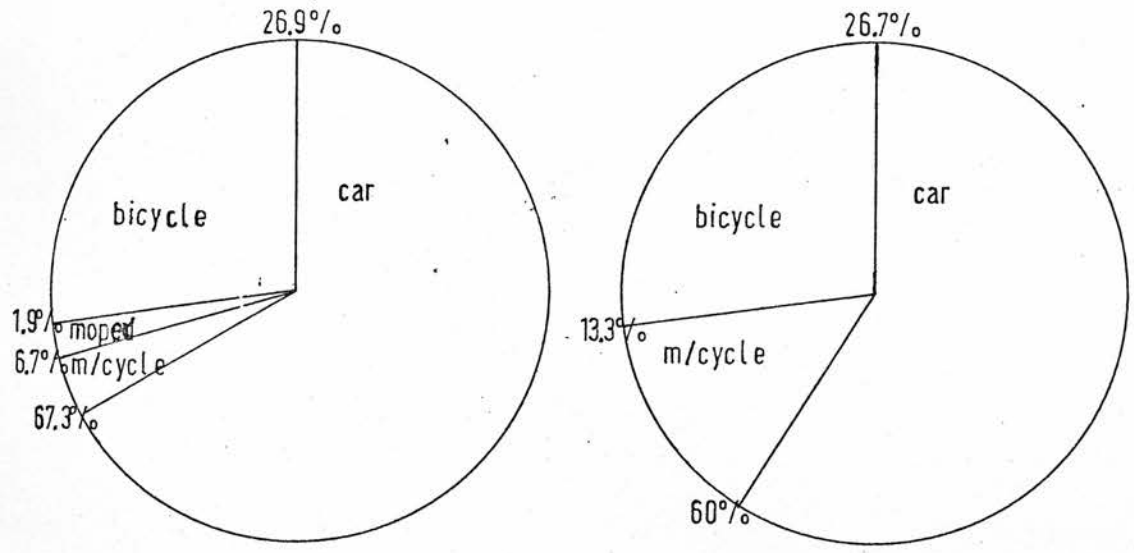
Cross-tabulation of Time Taken to Work by Means of Transport for Agricultural Workers

Type of Transport Used	Time Taken to Work: Up to 15 min.	15-29 min.	30-59 min.	1 Hour or more	Row Total
Own Transport	12	2	1	0	15
Lift	3	0	0	0	3
Public Transport	1	1	0	1	3
Company Transport	2	0	0	0	2
Walk	76	0	0	1	77
Column Total	94	3	1	2	100

Fig. 8.12 shows the type of 'own transport' used by the two groups of workers.

FIGURE 8.12

Type of Transport for Workers Using Own Transport



Note: only 15 per cent of agricultural workers are included in these diagrams.

This cross-tabulation of type of transport by time taken to reach work is also useful as a guide to the size of the Fife labour market, since, for example, a journey of up to one hour in a car indicates a much more extensive market than does the same journey by cycle.

As Table 8.12 shows, the car was not used as a means of reaching distant labour markets. In fact 82 per cent of car journeys took less than 15 minutes. Allowing for reasonable speed on Fife roads this means journeys not much in excess of ten miles. Fig. 8.12 also shows that the bicycle was still an important means

of transport for the ex-agricultural workers. Its use for journeys of less than 15 minutes would seem to indicate journeys of less than three miles.

TABLE 8.12

A Cross-tabulation of Type of Own Transport by Time Taken to Work

Ex-agricultural Workers

	Up to 15 mins.	15 - 29 mins.	30 - 59 mins.	Row Total
Car	29	5	1	35
M. Cycle	1	1	0	2
Moped	0	1	0	1
Bicycle	11	0	3	14
Total	41	7	4	52

Agricultural Workers

	Up to 15 mins.	15 - 29 mins.	30 - 59 mins.	Row Total
Car	7	1	1	9
M. Cycle	2	0	0	2
Bicycle	3	1	0	4
Total	12	2	1	15

Finally, it should not be assumed that the disparity between the two groups of workers in the use of the car as a means of transport indicated a similar disparity in car ownership. In fact 63 per cent of the agricultural workers and 52 per cent of the ex-agricultural workers owned cars.

8.06 Use of Information

The general conclusion of labour market studies is that informal means of receiving job information are the most important,

both for the worker and the employer.[23] 'Informal sources' include, in the case of manual workers, contacts with relatives, friends, workmates or employees. A study in the Chicago area[24] showed that 80 per cent of the 'blue collar' workers found their new job by informal means. This method of job search is also preferred by employers because referrals by present employees often reflect the characters of these employees. An established worker tends to make friends of similar character to himself and further, because any unsatisfactory recommendation will reflect back upon himself, he will only tend to recommend workers likely to be satisfactory. Other attractions for the employer are the costless nature of the operation, and the fact that the referral is already likely to be established in the area. Thus he avoids paying removal expenses, and does not suffer from workers unsettled by moving into a new and strange environment. The employee benefits because his friend or relative can provide more detailed information on the job than any advertisement or employment exchange. This information would cover aspects such as the temperament of foremen, details of conditions and methods of working.

Stigler[25] makes an interesting point about the use of these low cost informal methods. He states that employers who pay low wages will tend to use high cost information channels, particularly newspaper advertisements rather than public employment

23. e.g. Reynolds, L. G. The Structure of Labor Markets, in Wages and Labor Mobility in Theory and Practice, 1951.

24. Rees, A. Information in Labor Markets, Amer. econ. R. 56, Papers and Proceedings, 1966, p. 559 ff.

25. Stigler, G. J. Information in the Labor Market, J. polit. Econ. 70, Supplement, 1962, p. 94 ff.

exchanges. This has been true of agriculture in the past, with a high rate of advertising of jobs in local newspapers.[26]

Attempts have also been made to use a mathematical model of job search. In these the period of unemployment is expressed as a function of the expectations of a given wage and the opportunity cost of continuing to search for a job.[27] The measure used, a monetary return to job search, is, however, open to question. Firstly, the impact of family and friends on job choice makes itself felt both in terms of life style and role, and not simply in terms of monetary return.[28] An example of this from the United States of America shows that reliance upon informal sources perpetuated the discrepancies between negro and white workers in Middle Town.[29] Negroes learnt of jobs where negroes were easily accepted and applied for these. These jobs were traditionally low paid and unskilled. Another example, from agriculture, is the exposure of farmers' and farm workers' sons from their earliest years to their parents' occupation in a way that few other children are exposed. Thus they tend to leave school as soon as possible to enter agriculture, especially farmers' sons who have the extra inducement of the parental farm.[30]

26. e.g. the records of the Haddington Courier.

27. McCall, J. J. Economics of Information and Job Search, Quart. J. Econ. 84, 1970, p. 113 ff.

28. Samler, J. Psycho-Social Aspects of Work: A critique of occupational information, Personnel Guidance J. 34, 1961, p. 458 ff.

29. Jurie, M. and Raynack, E. Racial Differences in Migration and Job Search: A case study, South. econ. J. 33, 1966-67, p. 818 ff.

30. Gasson, R. Occupations Chosen by the Sons of Farmers, J. agric. Econ. 19, 1968, p. 317 ff.

Secondly, there is little evidence that workers in search of employment ask about hours and wages. A survey carried out in Australia, where informal job sources are important, showed that workers were mostly interested in the nature of the work. Questions about pay and employment prospects were less important.[31]

From this discussion the following points might be worthy of study in the Fife survey:

1. The use of informal methods of job information would predominate in both groups of workers, since both were largely composed of manual workers.

2. A higher rate of advertising might be expected amongst farmers.

3. Movement out of agriculture into other industries, hence into a more organised and urbanised market, would increase the use made of more formal methods of job information.

4. Amongst workers who have been in agriculture a high proportion will have had fathers in the industry.

The workers taking part in the survey were asked two questions concerning their use of information services. Firstly, information was elicited about how they first heard of their present job. Secondly, the nature of subsequent job search was enquired into.[32]

31. Dufty, N. F. The Effect of Occupational Experience on the Use of Relatives and Friends as Sources of Information on Occupational Choice, J. Industr. Relat. 13, 1971, p. 304 ff.; see also Robinson op. cit.

32. See appendix 2.1 Q. 22, 23.

Table 8.13 sets out the method by which the worker first heard of his present job.

TABLE 8.13

Information Sources Used by Workers Seeking their Present Job

Method	Workers	
	Ex-agriculture	Agriculture
Advertisement	16	55
Dept. of Employment Exchange	3	0
Youth Employment Exchange	0	2
Relatives, Friends	37	15
Direct Application to Employer	36	9
Direct Approach by Employer	8	19

From this table, it is immediately apparent that point 1 is supported. Both groups of workers showed little or no use of publicly provided sources of information. The reaction of a number of farm workers to the suggestion that they might use an employment exchange was that this would be, for them, a last resort. The public employment exchange was not associated with the means of finding a suitable job, but as the place where benefit was paid if they failed in their own job search. The Department of Employment, aware of this attitude from a wide range of workers, is at present separating offices for the payment of benefit from those for job information.[33]

Amongst ex-agricultural workers, 73 per cent heard of their job either through a personal contact or by applying direct to the

33. Department of Employment Proposal for Improving Employment Services, Gazette 78, 1970, p. 695.

employer's premises. For agricultural workers, these means of job information are not so important (22 per cent), but the high proportion of approaches by the present employer should be noted.

Newspaper advertisements are seen to play a very important part for agricultural workers. This method was used by 55 per cent of them, compared with 16 per cent of the ex-agricultural workers. This difference accords with the point made by Stigler that low wages and high cost methods of disseminating job information tend to be directly related. In agriculture, most jobs would be advertised locally, but the more skilled occupations, e.g. dairyman might be advertised on a wider scale.[34]

Question 23 on the workers' search for their next job supported the third point that workers who have left agriculture would make more use of formal channels. Table 8.14, analysing the replies to this question, is presented below:

TABLE 8.14

Methods by which Workers Would Seek for Their Next Job

	Workers	
	Ex-Agricultural	Agricultural
Advertise	2	9
Go to Dept. of Employment Exchange	23	4
Look at Paper	82	85
Consult friends/relatives	40	35
Other Means	15	4

Note: This question was a multiple choice question and so the categories are not mutually exclusive; the row total is therefore the proportion of the 100 workers in each group which would adopt this method of job search.

34. Malm, F. T. Recruiting Patterns and the Functioning of the Labor Market, Industr. Lab. Relat. R. 7, 1953-54, p. 507 ff; Rees op. cit.

Table 8.14 shows that the use of formal channels remains low for agricultural workers, but has increased amongst ex-agricultural workers. This change supports the suggestion that working in a non-farm, probably urban, environment increases the awareness of the information available through public employment exchanges. Use of newspaper advertisements remains high in both groups - as does the use of contacts through friends or relatives. 'Other means' of job search included such things as visiting prospective employers and employer approaches to workers. (This latter method applied only to agricultural workers).

Finally, there was evidence that many workers had taken up their father's occupation. Seventy-two per cent of the agricultural workers were the sons of agricultural workers (15 per cent of these had been farmers), and 68 per cent of the ex-agricultural workers were the sons of agricultural workers (13 per cent had been farmers).

8.07 Union Membership

The survey showed a low level of unionisation amongst agricultural workers. Only four per cent of the workers were in the agricultural section of the Transport and General Workers' Union. This figure compared with a 40 per cent unionisation amongst ex-agricultural workers.

TABLE 8.15

Union Membership of Ex-Agricultural Workers

	Total	%
Transport and General Workers'	8	20
Municipal and General Workers'	26	65
National and Public Employees	6	15

As might be expected from the disseminated nature of the industry none of the four agricultural members had union representatives at their place of work. There are two union branch secretaries in Fife to collect fees and organise local activity.[35] The extreme difficulty of contacting such a scattered work force is self-evident.

Of the 40 ex-agricultural workers with union membership, 33 had access to a shop steward at their place of work - a fact which obviously benefitted them in terms of organised and co-ordinated policy.

Reasons for not Joining Union: All workers who were not members of a union at present were asked their reasons for not joining since starting their present job.

TABLE 8.16

Reasons for not Joining Union

	Workers			
	Agricultural		Ex-Agricultural	
	Total	%	Total	%
Don't want to	41	42.5	41	68
Willing but never asked	17	17.7	6	10
No union at work	4	4.2	3	5.0
Fee too much	3	3.1	-	-
Other Reasons	27	28.2	8	13.3
Don't Know	4	4.2	2	3.3

The predominant reasons given by agricultural workers for not joining a union were their 'refusal' and 'other reasons'. In discussions with the interviewees it became evident that underlying this refusal, and also the most common reason listed under 'other',

35. Personal communication from the secretary of the Agriculture and Forestry Section of the T.G.W.U. on 16th March, 1972.

was the workers' general antipathy towards the idea of unions. This feeling was commonly based upon their belief that the union was powerless to act on their behalf. There was also a very strong sense of being capable themselves of obtaining their own terms from employers, without the need for assistance from negotiators. Possibly this practice has its roots in the traditional fee-ing market, where the wage would be agreed for a fixed term between the worker and the farmer or his grieve. Certainly some of the workers gave anecdotes of past fee-ing markets when discussing union membership and related topics.

The number of workers who have never been asked to join a union further underlines the difficulty of gathering recruits from so scattered a work force. The three workers who objected to the size of the union dues were in fact objecting to the infrequent collection of fees at intervals of two or three months, rather than weekly or fortnightly.

Ex-agricultural workers commonly gave as their reason for not joining a union their disagreement with union policy. Sixty per cent of the non-members gave this reason.

Previous Membership: Some of the present non-unionised workers had been members in the past. There were 32.4 per cent of the agricultural workers and 28.4 per cent of the ex-agricultural workers who had given up their union cards. They had done so because of dissatisfaction with union policy or lack of contact with union officials. Farm workers who move to another farm are more prone to leave unions than industrial workers changing jobs. A reflection of the higher probability of an industrial worker being

confronted by a union official in his new job. Farm workers are likely to move to a farm where there is not even another member, let alone a union official.

Membership of Fellow Workers: All workers were asked if there were any other union members at their place of work. The results are given in Table 8.17.

TABLE 8.17

Number of Workers in a Place of Work which is Unionised

	Yes	No	Don't Know	Total
Agricultural Workers	7	75	18	100
Ex-agricultural Workers	63	24	13	100

The distribution of union membership is shown in Table 8.18.

TABLE 8.18

Union Membership of Fellow Workers

Trade Union	Workers		
	Agricultural	Ex-Agricultural	
		Total	%
Allied Butchers' Union	-	1	1.6
Transport and General Workers' Union	7	15	23.8
Municipal and General Workers' Union	-	40	63.5
National Union of Public Employees' Union	-	7	11.1

Union Membership Workers whilst in agriculture: Workers who had left agriculture were asked details of their union membership whilst in agriculture. In their previous farm employment 19 had been union members. Of these, five had been in the now defunct Farm Servants' Union, and 14 in the agricultural section of the Transport

and General Workers' Union. Only three of these workers had been in the union for the entire period of their agricultural employment. Only four workers had been 'active' in the sense of attending union meetings.

CHAPTER 9

INFORMATION ON OTHER ASPECTS OF THE WORK-FORCE - (PART 2)

9.01 Introduction

This chapter, a continuation of the previous one, examines the workers' age, place of birth, health, marital status and household composition. In addition two factors, tied housing and education, related to the job presently held will be discussed.

9.02 Age and Place of Birth

The age distribution of the two groups of workers is shown in the histogram below:

FIGURE 9.1

Frequency Distribution of Workers' Ages

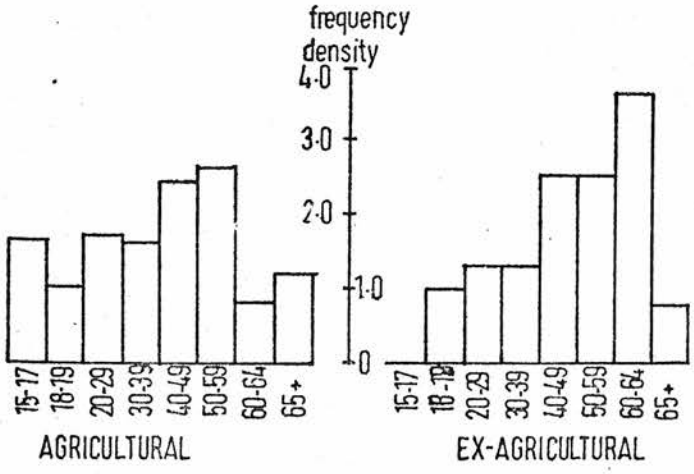


Figure 9.1 shows that for both groups of workers the age distribution was skewed to the right. Workers aged over 40 comprised 72 per cent of the ex-agricultural workers and 60 per cent of the

agricultural workers. Average ages were 46.8 and 41.6 years respectively. The age distribution of agricultural workers in the survey was similar to that of the United Kingdom and several European countries.[1] The average age distribution of regular full-time workers in Fife (June Census 1971) was 40.14, the survey results are comparable to this result. The average age for workers in the survey was 3.5 years older than that for workers in the survey carried out by the Economic Development Committee for agriculture.[2] This difference is probably accounted for by the high proportion of cropping and arable farms in Fife. These farms tend to have workers whose average age is higher than livestock farms.[3] This fact means that arable farms may be faced by an ageing labour force with the need to adopt measures to recruit and retain suitable young workers.[4] The age structure of ex-agricultural workers was as expected from the large number of workers shown to have left farming after the age of 40.[5]

The workers were asked to give their place of birth and length of residence in the United Kingdom if they were expatriates.

1. See chapter 4; also Mackel, C. Labour in Scottish Agriculture, B.Sc. Dissertation, Edinburgh University, 1970.
2. Agricultural Manpower in England and Wales, E.D.C. for the Agricultural Industry, H.M.S.O., 1972.
3. Op. cit. p. 45, Table 32.
4. Wagstaff, H . R. Recruitment and Losses of Farm Workers, Scott. agric. Econ. 21, 1971, p. 7 ff.
5. A full discussion of this point is found in chapters 6 and 7.

The results are presented in Table 9.1.

TABLE 9.1

Place of Birth of Workers

Place of Birth	Workers		
	Agricultural	Ex-Agricultural	Total
Fife	49	61	110
Elsewhere in Scotland	48	32	80
Elsewhere in Britain	1	5	6
Ex-patriates	2	2	4

The difference in the number of workers born and presently resident in Fife for the two groups reflects the fact that agricultural workers showed a higher degree of geographical mobility than ex-agricultural workers.[6] After Fife, Perthshire was the most common birthplace, with 16 per cent of the births. All four of the expatriate workers had been resident in this country for longer than twelve years. They had come from countries in Western Europe (France, Germany, Italy and Yugoslavia), and gave the impression that they and their families were well integrated into the community.

9.03 Marital Status and Family Employment

The marital status of workers is recorded in Table 9.2.

TABLE 9.2

Marital Status of Workers

Marital Status	Workers	
	Agricultural	Ex-Agricultural
Single	18	19
Married	76	79
Widowed, Separated or Divorced	6	2

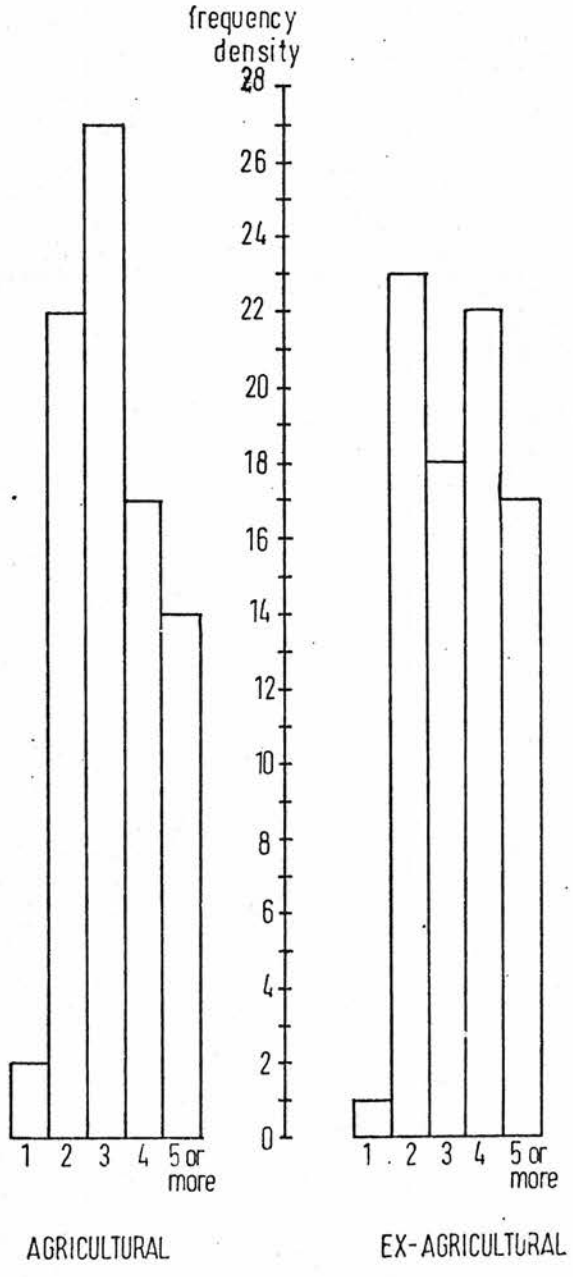
6. See discussion in section 7.03

All married workers were asked to give details of their wives' jobs, if any, and wives' earnings. Also details of household size and sons' occupations were recorded for all those who had been married.

The distribution of household size, including the interviewee, are presented in Figure 9.2.

FIGURE 9.2

Size of Married Workers' Households



Wives' Occupations: Of the agricultural workers' wives 35 per cent had regular paid jobs, compared with 39 per cent of ex-agricultural workers' wives. Fifty-six and 55 per cent respectively, of these wives worked more than 21 hours per week.

The classification of wives' occupations was as follows:

TABLE 9.3

Distribution of the Occupations of Workers' Wives[7]

Wives' Occupation	Wives		
	Agricultural Workers	Ex-Agricultural Workers	Total
Agriculture	5	0	5
Material Processing	3	2	5
Selling	4	8	12
Service Industries	11	18	29
Professional & Managerial	4	3	7

From Table 9.3 it is evident that sales and service industries accounted for the major part of the employment for wives. Service industries included catering services, caretakers and domestic helps. Those involved in selling were mostly employed in shops. In all cases wives employed in agriculture were on the same farm as their husbands.

7. A similar classification to that used for interviewees.

FIGURE 9.3

Distribution of Wives' Average Weekly Earnings

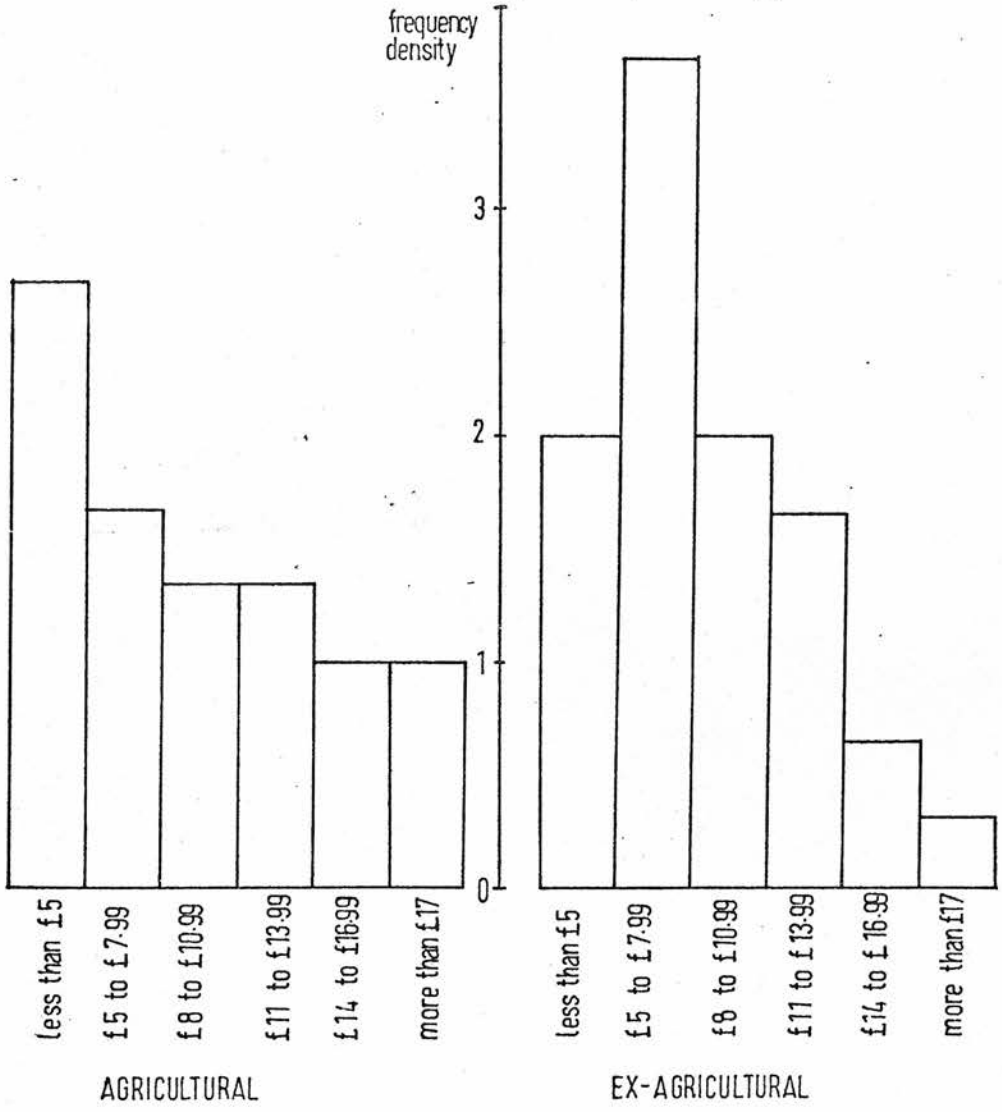


Figure 9.3 shows the take-home pay for wives. There was no major difference between the two groups of wives. For the wives of agricultural workers 90 per cent took home less than £11 per week.[8] The comparable figure for the wives of ex-agricultural workers was 92 per cent. The higher proportion of farm workers' wives taking home less than £5 per week was a reflection of the number who do domestic work for a few hours per week.

8. i.e. average gross weekly earnings, including any normal overtime and bonuses, less all deductions for tax, pension schemes, etc.

Sons' Occupations: All the workers who said that they had sons working were asked to give details of the occupations of their eldest two sons. The distribution is given in Table 9.4.

TABLE 9.4

Occupation of the Two Eldest Sons[9]

	Workers		
Sons' Occupations	Agricultural	Ex-Agricultural	Total
Forestry & Fishery	1	1	2
Agriculture	8	8	16
Mining & Construction	5	9	14
Engineering & Allied Trades	6	7	13
Material Processing	3	6	9
Transport	5	4	9
Plant Operators	0	1	1
Miscellaneous Labouring Jobs	0	1	1
Sales Staff	1	8	9
Service Industries	3	3	6
Professional & Managerial	4	3	7
Armed Services	4	4	8
Total	40	55	95

Table 9.4 shows the low number of sons who had entered agriculture. Only 14.5 per cent of the sons of present farm workers and 20 per cent of the sons of ex-agricultural workers were employed in agriculture. Whilst interviewees were not asked what had influenced their sons career choice, several did indicate that they had discouraged their sons from entering agriculture.

9. A similar classification to that used for interviewees.

Father's Occupation: For both groups of workers a very high proportion of their fathers had spent most of their working lives in agriculture. Seventy-one per cent of the agricultural workers and 68 per cent of ex-agricultural workers fell into this category. The distribution of occupational groups is given in Tables 9.5 and 9.6.

TABLE 9.5

Occupational Distribution of Interviewees' Fathers in Non-Farm Jobs

	Workers		
Fathers' Occupation	Agricultural	Ex-Agricultural	Total
Fishery, Forestry, Gardeners & Groundsmen	1	3	4
Mining & Construction	7	6	13
Engineering & Allied Trades	2	0	2
Material Processing	5	4	9
Transport	4	5	9
Miscellaneous Labouring Jobs	3	5	8
Service	3	2	5
Professional and Managerial	3	2	5
Armed Services	0	5	5
Total	28	32	60

TABLE 9.6

Occupational Distribution of Interviewees' Fathers in Farm Jobs[10]

	Workers		
Fathers' Occupations	Agricultural	Ex-Agricultural	Total
Farmer	15	13	28
Farm Manager	3	1	4
Grieve	11	10	21
Stockmen	11	8	19
Dairymen	2	1	3
Shepherd	7	6	13
Tractor or Horsemen	14	19	33
General Worker	4	5	9
Foremen	2	2	4
Other	2	3	5

10. One agricultural worker did not remember his father's occupation and so is excluded from the statistics.

These tables lend support to the suggestion by Ruth Gasson[11] that the children of farm workers, and of farmers in particular have tended to have a limited job horizon on leaving school.[12]

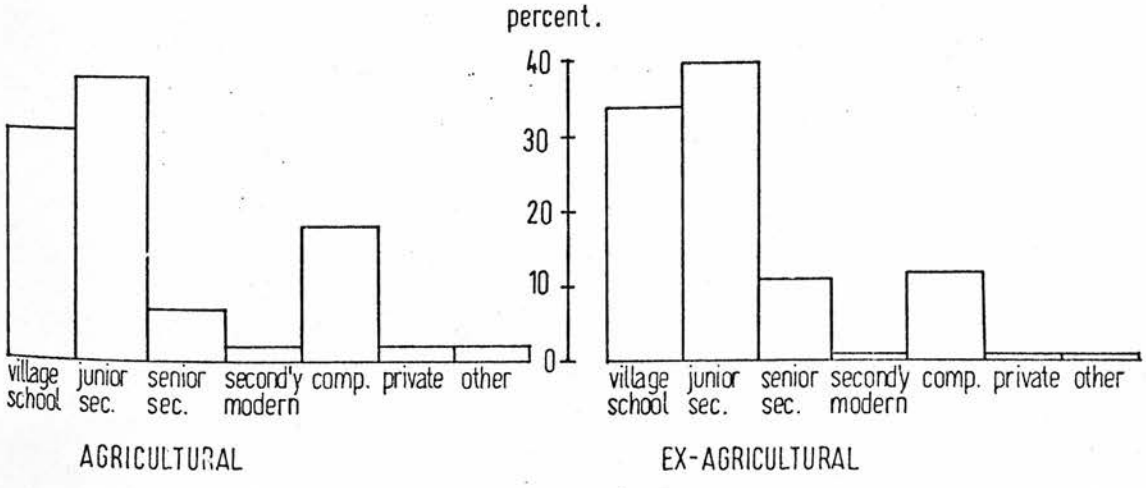
9.04 Education and Schooling

School: Figure 9.4 shows the type of school attended. It is evident that for both groups of workers a majority did not go beyond junior secondary level. The last school attended by 69 per cent of the agricultural workers and 74 per cent of the ex-agricultural workers was either a village or junior school. Attendance at a village school, with its combination of primary and secondary education, was generally restricted to workers now aged over 40 years.

Comprehensive schools were 'comprehensive' in the sense that they served a wide rural area and took children of all abilities, who were then streamed. Other schools mentioned were one for servicemen's children and two special schools (i.e. for children who were educationally slow to develop or suffering some physical disability).

FIGURE 9.4

Type of School Last Attended



11. Gasson R. Occupations Chosen by the Sons of Farmers, J. agric. Econ. 19, 1968, p. 317 ff.

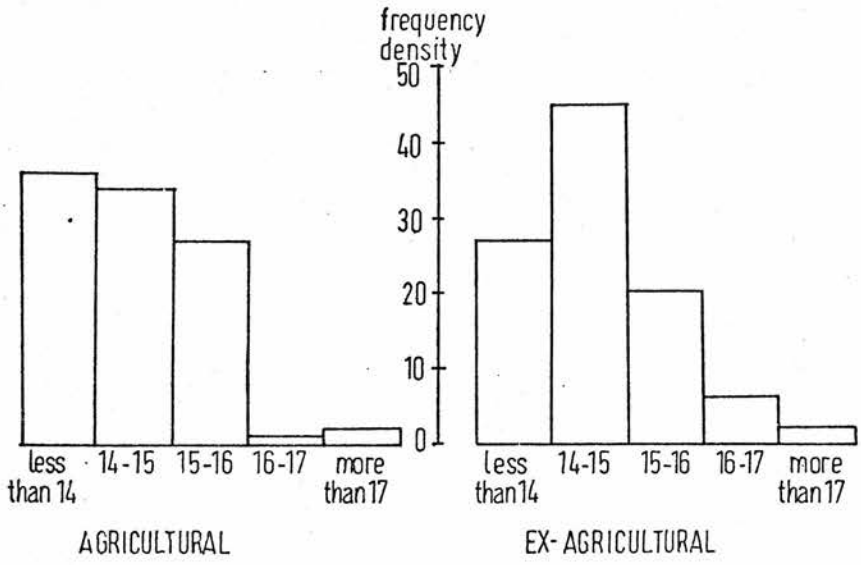
12. See the discussion of this point under 'Uses of Information', section 8.06.

As might be expected, with such a large group of workers leaving after attending a village or junior secondary school, the average school leaving age was low (Fig. 9.5). For agricultural workers it was 14 years and 5 months and for ex-agricultural workers it was 14 years and 7 months. The four workers who attended school after the age of 17 all went on to either college or university.

These results are again similar to those for the Manpower Survey.[13] In that Survey the average age of workers leaving school was 14.7, 85 per cent of the workers having left school by the age of 15. Compared with 70 per cent of agricultural workers and 72 per cent of ex-agricultural workers in the Fife survey.

FIGURE 9.5

Age of Leaving School



13. E.D.C. op. cit., p. 47.

At school, 14 per cent of each group of workers had obtained qualifications of some type as Table 9.7 shows.

TABLE 9.7

Distribution of Type of Qualification Gained by Workers at School[14]

	Workers	
	Agricultural	Ex-Agricultural
Lower Leaving Certificate	9	8
Higher Leaving Certificate	2	3
'0' Level	1	2
Other	2	1

Courses away from the place of work: All workers were asked if they had ever, since leaving school, attended any work-related course away from their normal place of work. It was intended that this question would cover any type of training from night classes to full-time college or university courses.

Of the farm workers 15 per cent had participated in such courses, and 18 per cent of the ex-agricultural workers had done so. The type of course is shown in Table 9.8.

TABLE 9.8

Distribution of Work-Related Courses Attended Away from Place of Work

	Workers	
Type of Course	Agricultural	Ex-Agricultural
Night Classes	4	9
Day Release	6	5
Full-time for less than 1 Year	2	3
Full-time for 1-3 Years	2	-
Full-time for more than 3 Years	1	1

14. In the cases of workers gaining lower and higher certificates at school only the latter were recorded.

One ex-agricultural worker had unsuccessfully started a degree course, and a number of other workers had attended courses offering no qualification at the end. The actual type of qualification gained is shown below:

TABLE 9.9

Type of Qualification Gained in Work-Related Courses

	Workers	
Qualification	Agricultural	Ex-Agricultural
Certificate	7	9
Diploma	1	1
No Qualification	7	8

On the job training: A quarter of the ex-agricultural workers had undergone some kind of job training in the past, either with their present or previous employers. Of the agricultural workers 13 per cent had also had some form of training. Table 9.10 shows the length of training.

TABLE 9.10

Time Spent in Job Training

	Workers	
	Agricultural	Ex-Agricultural
Less than 2 Weeks	4	12
2 to 4 Weeks	-	6
1 to 3 Months	3	2
More than 3 Months	6	5

It will be seen that 52 per cent of the workers attended courses of less than one month in duration, many of the courses lasting only a week. Typical of such training were courses in the erection of fencing and the use of sophisticated machinery such as pea-viners.

People attending courses of longer than three months had usually qualified as tradesmen by doing so (e.g. fitters and mechanics).[15] These workers were not necessarily using these qualifications in their present employment. A case in point was a qualified house-painter who had left his job to enter agriculture because of his health.

9.05 Qualifications and the Present Job

Only four per cent of the agricultural workers and five per cent of the ex-agricultural workers indicated that the qualifications they held were required as a condition of obtaining their present jobs. Reasons for qualifications not being required are shown in Table 9.11.

TABLE 9.11

Reasons for Not Using Qualifications

		Workers	
	Reasons	Agricultural	Ex-Agricultural
1.	Other and D.K.	2	4
2.	Gained since starting job	7	15
3.	Apprenticeship not completed	1	1
4.	Present job better than last	4	8
5.	Not required but used	7	2

D.K: Don't Know

From the second row, it should be noted that eleven per cent of all workers have gained their training since starting their present

15. These results are comparable to those in the E.D.C. survey, p. 51 ff.

jobs. The fourth row shows that twelve of the workers took their present job, neglecting their previous training, because they preferred the new kind of work. The fifth row shows that more agricultural workers were using qualifications not required by employers. Possibly this was because some farmers were reluctant to recognise the importance of present-day formal training.[16] A previously made point - that agriculture is lacking in pay and career structure for its workers - is relevant here. Health, family circumstances and the attention of free housing were other reasons cited for neglecting qualifications.

9.06 Health

All workers were asked questions[17] concerning their past and present states of health. In general, both groups of workers enjoyed good health, as Table 9.12 shows, with a slightly better record amongst agricultural workers.

TABLE 9.12

	Present Health		
	Good	Fair	Poor
Agricultural Workers	94	5	1
Ex-Agricultural Workers	87	12	1

Only one of the agricultural workers had experienced bad health in the past. However, twelve of the workers in the sample had left agriculture because of their ill-health, and a further eight ex-agricultural workers reported previous ill-health.

16. This is reflected also in the attendance of only 11% of under-18 year olds at day-release classes, compared with 38% in construction; see Giles, A.K. and Cowie, W.J.G. The Farm Worker: His Training, Pay and Status, 1964.

17. See appendix 2.1, Q.38 and 39.

Neither group of workers' ability to work was much affected by ill-health. Only in the case of five agricultural workers and six ex-agricultural workers was this so (Table 9.13).

TABLE 9.13

The Way in Which Work is Affected by Ill-Health[18]

Effect of Ill-Health	Degree of Disability		
	All the Time	Sometimes	Never
Difficulty in doing work	1	9	1
	Often	Occasionally	Never
Prevents going to work	1	8	2
	Yes	No	Don't Know
Reduces possible wage	2	6	3

(N.B. Table combines figures for both groups of workers)

9.07 Housing

To recapitulate the discussion of section 3.07, housing can affect mobility as follows:

1. In the United Kingdom, the amount of privately rented accommodation is being reduced by the clearance of property in, and around, urban centres. This reduces the supply of the type of rented housing which is most readily available to migrants from outside the district.

2. The provision of council housing is not an entirely satisfactory substitute for privately rented accommodation. Housing lists and their priority rules tend to inhibit mobility between local authority areas.

18. In view of the manpower survey findings (op. cit., p. 64 ff.) these figures for injury or ill-health are perhaps on the low side; possibly a result of questions 38 and 39 not being specific enough.

3. Owner occupancy in fact gives the greatest degree of mobility since there is no similar priority system in that housing market. Relatively few manual workers are owner occupiers.

4. It is difficult, in fact, to separate the effect of housing from other determinants of mobility.

The agricultural worker faces further problems peculiar to his position.[19] He often lives in a tied house close to the farm buildings with the result that:

a. Mobility within agriculture may be much greater because the worker has no need to seek for accommodation when taking a new job.

b. Now that farm cottages have greatly improved in amenities, farm workers can obtain good housing at subsidised or zero rents.

c. Tied housing may make it difficult for a worker to leave agriculture and obtain another house, even in an urban area, for his priority on council housing lists is low.[20]

d. A worker, in disagreement with his employer, or so ill that he may have to change his job, or about to retire, will be less secure.

The survey[21] outlined the types of accommodation of the workers interviewed, and examined the following points:

19. Barr, J. Tied Farm Cottages, New Society, 25th February 1965, p. 5 ff; Cowie, W. J. G. and Giles, A. K. Accommodation of Farm Workers, 1960; Cunningham, J. Sowing the Seeds of Misery, Guardian, 5 January 1973.

20. See discussion of this in section 4.08.

21. See appendix 2.1, Q.24 to 26.

1. That tied housing predominates in agriculture but that its standard, measured in terms of rooms and facilities, is equal to that occupied by industrial workers.

2. That tied housing facilitates movement within agriculture, whilst inhibiting movement out of the industry.

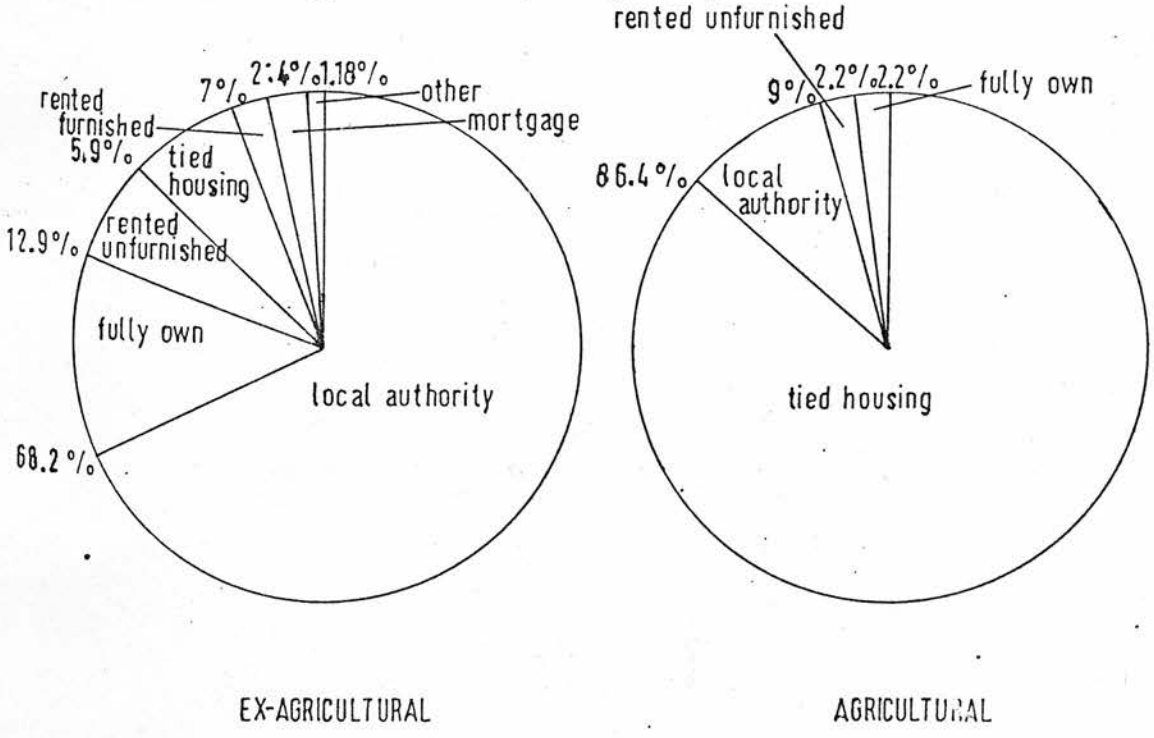
3. That if workers left agriculture because of housing, it was the tied nature of the house rather than the standard of accommodation which caused the move.

4. That the system of allocating council housing may inhibit movement.

Type and Condition of Housing: The workers who lived in lodgings (11 agricultural workers and 15 ex-agricultural workers) were not questioned further on their accommodation.[22] Thus questions 24B to 26 were addressed to only 89 and 85 workers respectively. The breakdown of type of housing occupied is given in Figure 9.6.

FIGURE 9.6

Type of Housing Occupied by Workers



22. It should be noted that for the purposes of this survey lodgings included workers living in their parents' home.

It is immediately obvious that tied housing is the predominant form of housing for agricultural workers (86 per cent). Only 7 per cent of the ex-agricultural workers were in this type of housing. For ex-agricultural workers local authority housing was the most important type of housing (68.5 per cent) compared with nine per cent of agricultural workers' dwellings. The relative lack of council housing in rural areas was an important underlying factor. The lack of privately rented accommodation was shown by the fact that only eight per cent of ex-agricultural workers and two per cent of agricultural workers occupied this type of housing. Owner occupancy was much lower amongst agricultural workers, at two per cent, than amongst ex-agricultural workers (15 per cent).

When comparing the facilities available within the houses, irrespective of type, there was not a great deal of difference between the two groups of workers' accommodation. However, three of the ex-agricultural workers and two of the agricultural workers were without bathrooms. Both of the agricultural workers were in tied houses. One of the ex-agricultural workers was in privately rented accommodation and the other two were owner occupants. Ex-agricultural workers had more bedrooms per dwelling, 48 (56.6 per cent) had at least three bedrooms, compared with 35 (40 per cent) of the agricultural workers. It has been suggested in another survey[23] that the lack of a third bedroom may be an important factor in encouraging workers with young families to move into council housing where the third bedroom is provided.

The distribution of the number of rooms per house excluding the bathroom/W.C. is given in Table 9.14.

23. Mackel op. cit.

TABLE 9.14

Distribution of All Rooms Excepting Bathroom/W.C.

	No. of Rooms						
Ex-Agricultural Workers	3	4	5	6	7	8	9
No.	3	33	40	6	2	1	-
Percentage	3.5	38.8	47	7	2.3	1.2	-
Agricultural Workers							
No.	2	53	25	3	3	1	2
Percentage	2.2	59.5	28.5	3.4	3.4	1.1	2.24

This table, which shows 58 per cent of the ex-agricultural workers as having at least five rooms, reflects the higher proportion of these workers who have at least three bedrooms. It seems that it was the number, size and height of rooms that was the major problem[24] in the condition of farm cottages, rather than the provision of inside toilets and bathrooms.

The Effect of Housing on Mobility: It was suggested that tied housing may, whilst reducing inter-industry mobility, increase mobility within agriculture. The actual findings of the survey did not support this thesis. Occupancy of a tied house reduced the propensity to move of a substantial proportion of the agricultural workers. Of the agricultural workers in tied housing 55.9 per cent said that they were less willing to try and find another job because of tied housing. Furthermore, whilst no response was elicited in these terms, a number of those who said that tied housing had no adverse effect on their mobility indicated that this was only whilst they were in agriculture. Of the six ex-agricultural workers now in

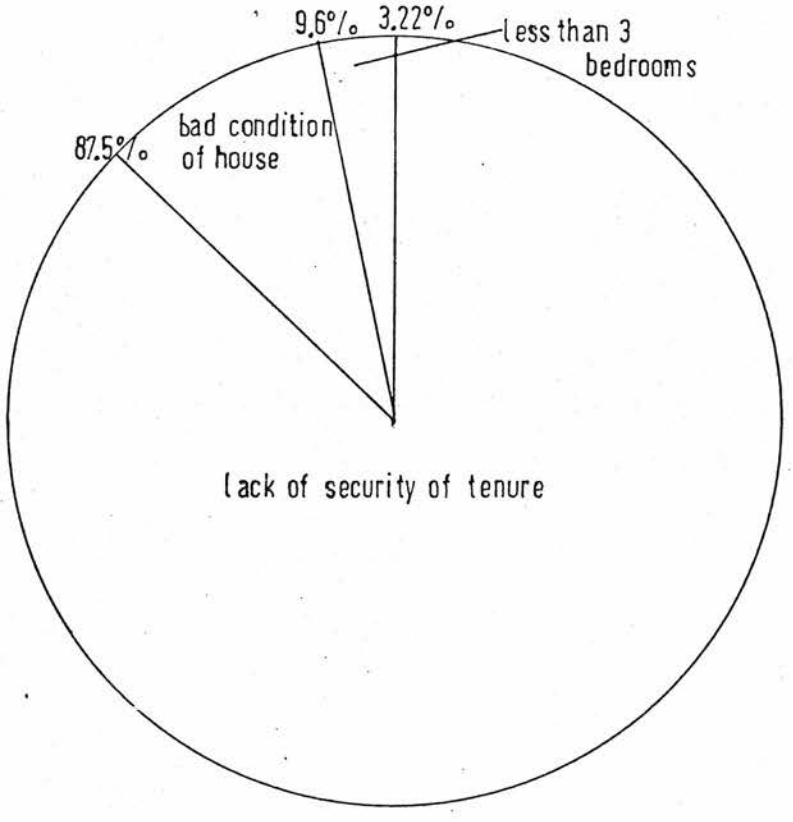
24. The Tied Cottage: A view from inside, correspondence column, Guardian, 9 January 1973.

tied housing, two said that this reduced their willingness to change jobs.

The ex-agricultural workers were asked if one reason why they left agriculture was to obtain more adequate housing. Thirty-two of the workers (37.6 per cent) said 'Yes' to this question. Fig. 9.7 shows the grounds of dissatisfaction with their housing.

FIGURE 9.7

Distribution of Reasons for Finding Housing Inadequate



The major reason for dissatisfaction with the housing was the fact that it was tied to the job. Bad conditions in terms of dampness, lack of amenities, etc. are relatively unimportant factors.

Another point worthy of note was the stimulus that tied housing may have been to geographical mobility. In the section on geographical mobility[25] it was discovered that there was a high rate of movement by ex-agricultural workers aged over 40 years. Twenty-five

25. See section 7.05

per cent of these workers had moved house in the last five years. In fact 17 of these 18 workers had previously been in a job providing some form of tied housing. Fifteen of them had been in agriculture, one in forestry and one in local authority service as a caretaker. The common reasons for leaving the last job were ill-health, redundancy or the need for a lighter job, which confirms point d. above. This problem was of course aggravated for the agricultural worker who had to cope with a major occupational change at the same time.[26] Perhaps a great deal could be done to remove the insecurity of workers if they were made aware of their rights under sections of the Rent Act (1965) and the Agricultural Act (1970).[27] This is not intended as a criticism of farmers in general; many of whom try to provide for workers nearing retirement.

Workers who did not think that they would easily obtain a new job in their area, or who did not know the opportunities for new employment, were asked to indicate their reaction to the possibility of moving to another area or taking a less suitable job.[28] Their response[29] and their type of housing has been cross-tabulated in Table 9.15.

26. See chapter 6.
27. Rent Act 1965, Public and General Statutes 1965, c. 75, Part III, Section 33; Agriculture (Misc. Provisions) Act 1970, Public and General Statutes 1970, c.40, Part VII, Section 99.
28. See appendix 2.1, Q.18.
29. See also chapter 7.

TABLE 9.15

Cross-Tabulation of Type of Accommodation
by Reaction to Employment Difficulties[30]

Type of Housing	Reaction: Take a Less Suitable Job	Consider Moving	Stop Work Altogether	Total
Owner occupant or mortgage	3	6	2	11
Privately rented	2	3	1	6
Local authority and SHA	26	23	8	57
Tied housing	4	48	7	59
Column Totals	35	80	18	133

Table 9.15 shows that there was probably a difference in reaction between those in tied housing and those in local authority housing. The figures for these two groups were extracted and cross-tabulation carried out in Table 9.16.

TABLE 9.16

Cross-Tabulation for Occupants of
Local Authority and Tied Housing

	Take a Less Suitable Job	Consider Moving	Stop Work Altogether	Row Total
Local authority and SHA	26	23	8	57
Tied housing	4	48	7	59
Column Totals	30	71	15	116

The result of testing the null hypothesis, that there was no difference between the occupants of tied housing and the occupants of local authority housing in their reaction to employment difficulties, indicated that there was a very real difference in the reaction of the

30. Note: 1. This table refers to both groups of workers.
2. Sub-groups of types of accommodation have been amalgamated.
3. Excluded are 41 workers because they did not consider that they would have difficulty in finding new employment in their present area.

two groups of workers. Occupancy of a council house does appear to inhibit movement outwith the local authority area.

Further light can be shed upon this point by comparing the distance moved by those who had been geographically mobile with the type of housing they now occupy. It must be emphasised that this comparison is slightly weakened by the fact that there was no record of the type of housing occupied before the last move.

TABLE 9.17

Type of House Now Occupied by
Distance Moved to that House

Type of Housing	Less than 10 Miles	11-30 Miles	31-100 Miles	More than 100 Miles	Row Totals
Fully own or mortgage	4	3	-	-	7
Privately rented	2	2	2	-	6
Local authority and SHA	34	7	6	2	49
Tied house	23	26	15	5	69
Column Totals	63	38	23	7	131

Table 9.17 shows that a far higher proportion (69.5 per cent) of present council tenants moved less then ten miles to their present house than did tenants of tied houses (32.0 per cent). Support for the thesis that people tend to either change council houses within their local authority area or first obtain a council house within their present area because of priority rules. Owner occupants and private tenants also appear to be more willing to move than council house tenants but, because of the low cell numbers, it was not practicable to carry out statistical analysis of the difference.

CHAPTER 10

THE IMPLICATIONS OF THE STUDY

10.1 Introduction

This chapter will summarise the main findings of the Fife survey and also comment on the theoretical implications of the study. A policy postscript and the final conclusions are reserved for chapter 11.

An important development on most of the previous work was the systematic attempt to survey ex-agricultural workers by personal interview. This decision to trace ex-agricultural workers through their present employer proved to be a very fruitful exercise. The new information obtained from these workers, which included their earnings, job satisfaction, unemployment and mobility, was compared with that of workers who had remained in agriculture. In view of the continued decline of the agricultural labour force and the increasing complexity of the industry, improved data on all aspects of labour will assume even greater importance.[1]

This chapter will be divided into two main sections:-

1. A Comparison of the Results with Other Studies
2. A Discussion of the Theoretical Implications of these results

The final section (10.13) will set out some suggestions for the methodology of further research.

1. Britton, D. K. Agricultural Manpower and the Current Situation, in Agricultural Manpower, E.D.C. for the Agricultural Industry, H.M.S.O. 1969.

A COMPARISON OF THE RESULTS WITH OTHER STUDIES

A brief resumé of the main results is given first, followed by a detailed presentation of the data. All the statistics from the Fife survey presented in this chapter are abstracted from chapters six to nine. The tables within this chapter are formed from the amalgamation of those contained in the preceding chapters. In all cases reference to the original tables is made.

10.02 Resumé of the Fife Study

The existence of a great deal of mobility of workers between farms demonstrated the importance of studying gross-flows of workers. The tracing of workers' mobility over the last three jobs gave valuable new information. There was evidence of selective mobility amongst ex-agricultural workers. Non-monetary factors were important elements in job choice for all groups of workers, and a significant proportion could give no specific reason for taking their present job. Higher wages were most important to those who had been voluntarily mobile. A wage differential did exist between agricultural and ex-agricultural workers but, because of the selective nature of mobility, many ex-agricultural workers remained in relatively low paid jobs. For this group of workers, even when an improvement in money wages was obtained, it was often insufficient to cover the extra cost of housing and loss of perquisites. There was also a much higher incidence of unemployment amongst workers who had just left agriculture. Geographical mobility tended to be restricted in extent, particularly amongst ex-agricultural workers. Urban centres exerted an important influence, both in terms of job opportunity and levels of pay. The two main types of housing affected mobility in different ways. Tied housing meant that agricultural workers could move greater distances to new jobs, but it also caused insecurity and

reduced the willingness to undertake job changes. This was particularly so for workers considering a job change out of agriculture. Council housing whilst offering security of tenure, restricted geographical mobility and so accentuated the effects of the job opportunities in the worker's locality. Finally, most job information was shown to be obtained by informal methods with little or no reliance upon the local employment exchanges.

10.03 Occupational and Industrial Mobility

Of the 100 agricultural workers surveyed, 73 had made their last change of job within agriculture and eleven had come straight from school. The remaining sixteen had come from unskilled and semi-skilled non-farm jobs, although half of these had had previous agricultural experience. Of the 73 workers who changed their employment within agriculture, 46 (63 per cent) remained within the same occupational group.[2] The data indicates that a high proportion of the workers leaving one farm job enter another one. That is, they have no wish to leave agriculture but move for a variety of reasons, e.g. to gain more favourable wages or conditions, more or less responsibility or possibly promotion. In McIntosh's[3] study (Scotland, 1967-1970), almost 43 per cent of men who left farms took another farm job. The data in the Fife survey is not directly comparable with this figure but accords with it. Similar proportions were found by Black[4] in Yorkshire, and Hawkesworth[5] in Nottingham.

2. See Tables 6.1 and 6.7

3. McIntosh, F. A Survey of Workers Leaving Scottish Farms, Scott. agric. Econ. 22, 1972 p. 147 ff.

4. Black, M. Agricultural Labour in an Expanding Economy, J. agric. Econ. 19, 1968, p. 59 ff.

5. Hawkesworth, R. I. A Study of the Mobility of Farm Labour in South East Nottingham-shire 1965-70, MSc. Thesis, University of Nottingham, Dept. of Agricultural Economics.

Of the 100 ex-agricultural workers, 57 had left the industry at their last change of job and the remainder had made at least one subsequent change. The present job distribution of ex-agricultural workers is shown below in Table 10.1.

TABLE 10.1

Job Distribution of Ex-Agricultural Workers in Fife

	Workers in their first job since leaving agriculture	Workers in their second or subsequent job since leaving agriculture
Miscellaneous Labouring Jobs	21	7
Groundstaff and Forestry Workers	19	8
Material Processing and Manufacturing	7	4
Transport	4	9
Salesman	3	7
Engineering and Allied Trades	1	2
Plant Operators	1	2
Managerial and Clerical	1	4
	57	43

(Source: Tables 6.13 and 6.20)

The Fife survey established that 70 per cent of the workers who left agriculture entered related industries, where there were jobs either for the unskilled or those with transferable agricultural skills e.g. driving and handling machinery. Bessel[6] (England and Wales, 1970) found a similar pattern of movement, 29.5 per cent of the male workers who intended to leave agriculture in the next five years said that they would take some kind of outside employment, e.g. construction work. A further seven per cent nominated an unclassified job.[7] Gasson found in her survey that of the 732 workers who left

6. Bessel, J. E. The Young Worker in Agriculture, E.D.C. for the Agricultural Industry, H.M.S.O. 1972.

7. These figures are taken from the righthand column of Table 41, p. 34, op. cit.

farms in her survey[8] (Cambridge, Stevenage and Haverill, 1973), 44 per cent took farm or farm related jobs, with another 24.7 per cent taking 'out door' manual jobs.

It is unfortunate that neither Bessel's nor Gasson's surveys were designed to follow the subsequent movement of workers who had left agriculture. The picture which emerges from the Fife survey is of workers moving into occupations which were dissimilar to agriculture in the skills required. That is, workers were able to acquire new skills, and so move into positions of responsibility. Typical of this 'upward' occupational mobility is the increased number becoming salesmen of technical equipment, e.g. farm machinery. Many of these interviewees first joined agricultural supply firms as yardsmen, doing general unskilled manual work. From this they were able to progress to their present jobs, often first becoming delivery men and then acting as demonstrators of implements. The proportion of workers in 'allied occupations' had fallen to 35 per cent.

10.04 Factors Affecting Mobility between Jobs[9]

In Tables 10.2 and 10.3 factors which were the main cause of the worker making his last change of job are classified into 'push', 'pull' and 'neutral' categories. It is acknowledged, however, that this categorisation is difficult to apply and has been the subject of much discussion. McIntosh[10], for example concluded that 'pull' was more important than 'push' for men leaving Scottish farms. A view which has been opposed on the grounds that technological progress made within agriculture is claimed to have exerted a significant

8. Gasson, R. Mobility of Farm Workers, 1974, p. 54.
9. This data is collated from Tables 6.2, 6.8, 6.12 and 6.16.
10. Op. cit. p. 152.

'push' to agricultural employment.[11] Some tentative evidence on the strength of these forces must come from the extent to which workers who leave farms are replaced. In the year June, 1967 to May, 1968, 38.5 thousand workers left agriculture, forestry and fisheries in Great Britain and 20.9 thousand were recruited.[12] That is, 53 per cent of workers were replaced, an indication that the forces of 'push' and 'pull' were approximately equal. Wagstaff came to a similar conclusion[13], and showed that the gross loss of workers in the period 1966-7 to 1968-9 was almost double the net loss. The data presented by McIntosh[14] also showed that more than half of workers leaving farms were replaced. An aspect which must also be considered is the incidence of 'push' and 'pull' as these forces affect the different groups of workers. An important contribution of this Fife study was that it related age, health and job attainment, as well as wage changes, to whether the worker was pushed or pulled out of agriculture. Another consideration, which did not fall within the scope of the Fife study, was to examine how these forces changed with the changing level of employment in the economy. Evidence in other studies indicates that 'pull' forces tend to dominate when alternative employment opportunities are high.[15]

11. Black op. cit; Heath, C. E. and Whitby, M. C. The Changing Agricultural Labour Force, University of Newcastle Agricultural Adjustment Unit, Bulletin No. 10, 1969.
12. Approximate Flows of Employees between Industrial Order Groups, Gazette 78, 1970, p. 306 ff.
13. Wagstaff, H. Recruitment and Losses of Farm Workers, Scott. agric. Econ. 21, 1971 p. 7 ff.
14. Op. cit. p. 148.
15. Cowling, K. and Metcalf, D. Labour Transfer from Agriculture: A Regional Analysis, Manchester Sch. econ. soc. Stud. 36, 1968, p. 27 ff.

Even if the available evidence points to a balance between 'push' and 'pull' do these forces adequately describe the interplay of factors which determine mobility? Firstly it is said that they do not adequately reflect the complex psychological forces at work.[16] This is true. All that is claimed for the use of 'push' and 'pull' concepts in this thesis is that it provides a useful initial analysis of the results. Secondly, the difficulty of applying 'push' and 'pull' categories to the individual farm worker is recognised.[17] Low wages, for example, may serve to push workers from one farm, but at the same time high wages elsewhere may exert a 'pull'. There are also factors which are not directly work related, e.g. the proximity of amenities. Many of these problems can be minimised, however, if it is made clear to the interviewee that you wish to record the main reason why he left his last job. In this way it is clear that if a worker becomes aware of a higher paid job and takes it then 'pull' rather than 'push' has been the predominant factor, since it was the awareness of the higher paid job which stimulated the move. In Table 10.3 certain factors are classified as 'neutral' because it is difficult to attribute them to either 'push' or 'pull' categories.

16. Taylor, R. C. Migration and Motivation, in Migration ed. J. A. Jackson, 1969.

17. Gasson, R. The Drift from the Land, Unpublished Paper given at B.S.A.L.S. Conference Reading 23 April, 1974.

TABLE 10.2

Reasons Given by Workers for Leaving Last Job ("Push" Factors)*

Direction of Movement of Workers \ Reason Given	Redundant	Dismissed	Job too heavy	Disagreed with Employer	Ill Health	Insecurity of Housing	Insecurity of Job	Total
Entering Agriculture	2	1	-	1	-	-	-	4
Remaining in Agriculture	9 (45%)	-	-	6 (30%)	-	5 (25%)	-	20
Leaving Agriculture	10 (34%)	3 (10%)	2 (7%)	1 (3%)	6 (22%)	7 (24%)	-	29
Already in Industry	9 (41%)	-	1 (4%)	1 (4%)	7 (33%)	-	4 (18%)	22
TOTAL	30 (40%)	4 (5%)	3 (4%)	9 (12%)	13 (17%)	12 (16%)	4 (5%)	75

(Source: Tables 6.5, 6.11, 6.17 and 6.24).

*Note: 11 workers entered their present job straight from school and are, therefore, excluded from Tables 10.2, 10.3 and 10.5.
Figure in ( ) is percentage of total.

Table 10.2 shows that redundancies and dismissals of staff account for over 40 per cent of 'push' factors in all four categories. For workers who remained within agriculture the effects of dismissal were probably less severe than for workers who left the industry. The incidence of unemployment, for example, as one measure of the 'costs' to the individual, was much higher amongst this latter group.[18] The close working relationship between staff and employer, and the degree of personal involvement by staff in husbandry practices, are the probable sources of the main disputes between farmers and their employees. Insecurity of tied housing is included in this table

18. 37 per cent were unemployed compared with 7 per cent of agricultural workers.

as a 'push' factor since the worker was asked the reason for leaving the last job rather than the attractions of the new one. The five agricultural workers involved in fact occupied tied housing in their new jobs. Amongst ex-agricultural workers who had been 'pushed' out of their last job, ill-health and incapacity for heavy work were prominant - indications of the strain that certain farm tasks may impose[19], and of the long term effects this may have upon an individual's prospects.

TABLE 10.3

Reasons Given by Workers for Leaving Last Job ("Pull" and "Neutral"* Factors)

Direction of Movement of Workers \ Reason Given	Higher Pay	Family Reasons	Promotion	Interest in alternative farming systems and desire for a change	Nearer to Amenities	Lack of Prospects	Retiral of Farmer	Other	Total
Entering Agriculture	3 (25%)	1 (8%)	-	-	-	-	-	8 (67%)	12
Remaining in Agriculture	9 (17%)	2 (4%)	9 (17%)	12 (23%)	6 (11%)	5 (9%)	3 (6%)	7 (13%)	53
Leaving Agriculture	10 (36%)	-	-	-	4 (14%)	6 (22%)	3 (10%)	5 (18%)	28
Already in Industry	5 (24%)	-	9 (43%)	-	-	2 (9%)	-	5 (24%)	21
COLUMN TOTALS	27 (23%)	3 (3%)	18 (16%)	12 (11%)	10 (9%)	13 (11%)	6 (5%)	25 (22%)	114

(Source: See Table 10.2).

19. e.g. dairy cattlemen; see Agricultural Manpower, E.D.C. for Agriculture H.M.S.O. 1972 p. 64.

The opportunity for higher pay and/or promotion is seen to predominate amongst 'pull' factors in all groups. Also of importance is the farm worker's interest in alternative farming practices or his desire for a change of farming type (e.g. one interviewee moved to satisfy his wish to work with an Aberdeen Angus herd). Proximity to amenities is important both for workers leaving agriculture and for those moving within the industry. This is supported by other Scottish figures[20], 13.7 per cent of the men leaving farms because they were too remote. As Table 10.3 showed these workers did not necessarily leave agriculture. Gasson[21] found that 'remote'[22] farms lost 37.5 per cent of their hired staff in the period 1961-69, 'accessible' farms only 27.3 per cent. From talking to interviewees in the Fife study it appeared that some of those moving from farms in the Borders or Perthshire did so to avoid isolation. Thus whilst farms around urban centres might be expected to lose staff because of the job opportunities close by, they may also gain staff from more remote farms exactly because they are close to urban amenities. The number of workers leaving farms on the retiral of the farmer possibly reflects their unwillingness to accept change in an established system. It is not classified as a 'push' since they were not obliged to leave their job.

It is also meaningful to compare Tables 10.2 and 10.3 in terms of 'voluntary' and 'involuntary' movers. The importance of distinguishing these categories of movement was discussed in section 3.03. Other studies have established that voluntary movers show a

20. McIntosh op. cit. p. 149.

21. Op. cit. p. 23.

22. 'Remoteness' and 'accessibility' were measured in terms of linear distance from the nearest town, together with the frequency of bus services.

much higher proportion of wage gains than those who make involuntary moves.[23] Also that they were less prone to periods of unemployment (see section 10.06). The important study carried out by an O.E.C.D. Working Party[24] concluded that "This last category (voluntary movement) is the only one for which net economic advantage is likely to be a substantial factor in job changing decisions." McIntosh[25] found that 56 per cent of voluntary movement from farms in Scotland was for reasons of pay or promotion. Conversely involuntary movement tends to be associated with a reduction in wages and an increased incidence of unemployment. In the Fife survey the incidence of both wage reductions and unemployment amongst voluntary and involuntary movers was found to be significantly different[26] (see sections 10.05, 10.06 and 10.07).

As the discussion in section 3.07 showed, age has a profound effect on mobility, though often it is difficult to dissociate this from related factors e.g. seniority, family responsibilities and health. The consensus of findings from empirical studies is that in general younger workers are more likely to make job changes.[27] Many of these moves are made on an 'experimental' basis, with little time devoted to obtaining job information prior to the move.[28] Wage comparisons and promotion take on more importance with increasing age, skill or seniority, whilst actual mobility declines.[29] Age brings

23. Parnes, H. S. Research and Labor Mobility, 1954; Heneman, H. G. Patterns of Manpower Mobility, 1948; Mackay, D. I. et al Labour Markets under Different Employment Conditions, 1971.
24. Wages and Labour Mobility, ed. P. de Wolff O.E.C.D., 1965 p. 74.
25. Op. cit. p. 149.
26. Significant at the 1 per cent level. Note: Test used in this chapter is that for the difference between the percentages of two samples (see Appendix 5).
27. e.g. Parnes op. cit; Reynolds op. cit; Mackay op. cit; de Wolff op. cit; Gasson op. cit.
28. Carter, M. Into Work, 1961.
29. Wolff op. cit. p. 75; Gasson op. cit. p. 45.

with it acquired skills, seniority and status, family responsibility and community ties; all these tending to reduce mobility. Amongst workers nearing retirement factors like ill-health, incapacity for heavy work and insecurity of tied housing may increase mobility; though much of this movement will be involuntary. The time of the last job change broken down by age of the worker was shown in Figure 6.1, 6.4 and 6.6.

Workers who remained in agriculture exhibited the expected age-mobility profile. A comparison of Figure 6.1 and 6.4 shows that 21 (66 per cent) of the workers who last moved less than five years ago were aged under 40 years. Conversely 32 of the 33 workers who had held their present job for more than ten years were aged over 40 years. Workers leaving agriculture present a contrasting pattern. Only seven (27 per cent) of the workers in their present job for less than five years were aged under 40 years. Analysis of Figure 6.1 and Figure 6.6 led to the rejection of the null hypothesis that there was no difference between the groups of workers in their age mobility profiles.[30] That is, a substantial group of workers by leaving agriculture late in their working lives, did not show the anticipated age mobility profile. Cross-tabulation with Table 10.3 showed that at least 51 per cent of these workers had left agriculture involuntarily. The anticipated effects of age on the mobility of this group of workers had been altered by the impact of factors outwith the control of the workers.[31]

The mobility pattern of workers already in industry returns more to the expected norm. Many of these workers will have left

30. Significant at the 1 per cent level; see summary of statistical tests for chapter 6.

31. See also Gasson op. cit. p. 46.

agriculture earlier in life and had time to acquire new skills, gain promotion and become established in a new environment.

10.05 Mobility and its Effect on Earnings

The disparity between agricultural and industrial wages attracts attention both because of its size and its persistence.[32] However, there are indications that there might be some important qualifications to this general comparison. Inter-industry migration figures for Great Britain showed that 18 per cent of workers leaving agriculture in 1968 entered miscellaneous services or public administration.[33] These are industries where the average wage paid was not substantially above that paid in agriculture.[34] Some American surveys[35] have shown that many workers who left agriculture made no short or even long term gain by their move. If British workers were to suffer similar reductions in money wages, the loss of perquisites would increase the total loss.

Table 8.5 supports the general contention that average agricultural wages are lower than those paid to workers leaving the industry. Calculated from this table the average wage was £18.50 and £20.40 respectively.[36] It is notable however that a similar proportion of both groups were taking home less than £17.50 per week. A substantial proportion of migrants from agriculture had

32. Bessel op. cit. p. 36,37; Metcalf, D. The Economics of Agriculture, 1969 p. 49.

33. Gazette op. cit.

34. Scottish Abstract of Statistics No. 3 1973, Tables 87 and 89, present figures from the New Earnings Survey. In 1972 average gross weekly earnings for full-time male adults was £24.90 in miscellaneous services, £27.10 in public administration and £24.10 in farming, forestry and horticulture.

35. Hathaway, D. E. and Perkins P. B. Farm Labor Mobility, Migration and Income Distribution Amer. J. agric. Econ. 50 1968 p. 342 ff; Gallaway, L. E. Mobility of Hired Agricultural Labour, J. Fm. Econ. 49, 1967 p. 32 ff.

36. Difference significant at the 1 per cent level.

remained in low wage occupations. It is the distribution of those taking home more than £20 per week which accounts for the difference in the averages. Twenty per cent of ex-agricultural workers took home more than £25 per week, compared with four per cent of agricultural workers.

TABLE 10.4

Alteration in Weekly Take Home Pay
at Last Change of Job for All Workers

Direction of Job Movement	Wage Increase	Wage Reduction	No Change	Total
Workers entering Agriculture	7 (44%)	7 (44%)	2 (12%)	16
Workers remaining within Agriculture	48 (66%)	8 (11%)	17 (23%)	73
Workers leaving Agriculture	28 (49%)	19 (33%)	10 (18%)	57
Workers already in Industry	30 (70%)	8 (19%)	5 (11%)	43

(Source: Tables 6.4, 6.10, 6.16 and 6.23)

A comparison of changes in wages with direction of movement reveals some interesting facts as shown in Table 10.4. In general, workers showing wage gains have either remained in agriculture or, on leaving, have learnt new skills and obtained positions of responsibility. The 48 interviewees (66 per cent) who had gained an increase whilst remaining in agriculture support Gallaway's suggestion[37] that these workers are more likely to gain wage increases than those just leaving the industry. Gallaway explains this in terms of differentiating between voluntary and involuntary movement. The importance of this distinction has already been underlined in section 10.04 (see also section 10.06). Nineteen

37. Op. cit. p. 37.

workers (33 per cent), who left agriculture suffered an actual reduction in money wages; seven experienced a reduction of more than £3 per week. These were workers formerly engaged in livestock or supervisory jobs, often leaving agriculture involuntarily and being taken on in routine manual jobs e.g. roadmen. Their age, lack of transferable skills and possibly ill-health may hinder any move into a more rewarding job. Further, these reductions take no account of a possible additional reduction in total remuneration, because as well as receiving a wide range of fringe benefits, 85 per cent of these migrants left housing for which they paid little or no rent. Workers were not asked the cost of renting accommodation or of compensating for perquisites, but these have been estimated at £3 per week.[38] If this is accepted as a reasonable estimate, then only 18 per cent of workers made a gain in real terms on first leaving agriculture. Statistical analysis of Table 10.4 showed that workers who remained in agriculture had a more consistent record of wage gains than those who had just left the industry.[39] In fact, a high proportion of all workers (46 per cent) who gained an increase received less than £2 per week extra. The exception to this were those workers already in industry, where 18 (60 per cent) received increases of more than £3 per week. These wage improvements fit into the pattern which emerged in the previous section. Workers able to establish themselves outside agriculture, tend to move voluntarily, and often for reasons of higher pay or promotion.

38. Bessel op. cit. p. 39.
39. Difference significant at the 1 per cent level; see summary of statistical tests for chapter 6.

10.06 The Incidence of Unemployment

Any period of unemployment suffered by the worker will compound the effects of involuntary movement and loss of earnings. It should be noted that the incidence of unemployment was much higher amongst workers who had just left agriculture, than in any other group, as Table 10.5 shows:

TABLE 10.5

Employment Record at Last Change of Job

Direction of Movement of Workers \ Employment Record	Straight to Next Job	Unemployed Up to 1 month	1 - 6 Months	6 months to 1 year	more than 1 year	Total
Entering Agriculture	10 (63%)	2 (12%)	3 (19%)	-	1 (6%)	16
Remaining in Agriculture	68 (93%)	2 (3%)	3 (4%)	-	-	73
Leaving Agriculture	36 (63%)	7 (12%)	11 (19%)	1 (2%)	2 (4%)	57
Already in industry	36 (84%)	1 (2%)	3 (7%)	3 (7%)	-	43
Column Total	150 (79%)	12 (6%)	20 (11%)	4 (2%)	3 (2%)	189

(Source: Sections 6.05, 6.10, 6.18 and 6.31).

The employment record of those workers remaining in agriculture, and for those who have made at least one change outside the industry, was good. However, of the 57 workers who had just left agriculture 21 (37 per cent) were unemployed, 14 of them for longer than one month. A comparison of this group with workers remaining in agriculture established that the former group had a much higher

risk of unemployment.[40] Difficulty was faced by this group in obtaining another job, although none of them had a previous history of employment problems. Ten had held their previous job for at least five years, only three of them being unemployed at the time of their penultimate job change. Because previous United Kingdom studies have tended to interview farmers rather than their workers they do not give details of unemployment. A comparison with the Fife results is therefore not possible.

10.07 Geographical Mobility

Movement of workers in the Fife study was predominantly over short distances. This was particularly so for workers leaving agriculture, of whom 67 per cent moved less than ten miles at their last change of address, compared with 33 per cent of the workers who remained in agriculture. A difference in rates of geographical mobility might be anticipated from the different employment prospects facing both groups of workers. The agricultural worker has a well defined job market with detailed descriptions of various jobs readily available in the newspaper advertisements (see section 10.08). Also the availability of tied housing removes one of the major problems involved in geographical mobility (see section 10.09). The worker who leaves agriculture often has none of these advantages. In general, jobs are more difficult to assess from newspaper advertisement descriptions, and may require non-farm experience. He will also have to obtain housing, probably from the local authority, which will tend to be easier in his present area. Local ties will reduce long distance moves in both groups of workers. These forces will of course

40. Difference significant at the 1 per cent level; see summary of statistical tests for chapter 6.

tend to be stronger amongst the older workers.

The low rate of geographical mobility amongst manual workers was anticipated from previous general studies.[41] Gallaway[42] found that agricultural workers were responsive to the local market. Surveys of workers in the United Kingdom by Bessel, Gasson and Newby[43] support this picture of the worker responding to employment opportunities in the local market.

In the Fife labour market it is essential to note the importance of towns like Cupar, St. Andrews and Leven as centres of local employment,[44] drawing workers from the immediate area. Of the ten workers moving into St. Andrews only one came from a distance greater than ten road miles from the town. Twenty-one workers moved to Cupar, 14 formerly living within ten miles of the town, and only three more than 15 miles distant. Similarly four of the five migrants to Leven moved less than ten miles. A study of East Anglia revealed a similar restricted market.[45] Gasson,[46] in selecting the parishes for her survey, assumed that workers would tend to consider jobs within a seven mile radius.

The survey by Gasson[47] prompted another line of enquiry in the Fife study. She found that the characteristics of migrants and

41. Harris, A. and Clausen, R. Labour Mobility in Great Britain 1953-63, H.M.S.O. 1966; Jefferys, M. Mobility in the Labour Market, 1954; Mackay et al op. cit.

42. Gallaway, L. E. Geographic Flows of Hired Agricultural Labor, 1957-60, Amer. J. agric. Econ. 50, 1968 p. 199 ff.

43. Bessel op. cit; Gasson op cit; Newby, H. The Low Earnings of Agricultural Workers: A sociological approach J. agric. Econ. 23 (1), 1972 p. 15 ff.

44. See Fig. 7.1a to 7.1d.

45. Moseley, M. J. The Impact of Growth Centres in Rural Regions Reg. Stud. 7, 1973 p. 77 ff; Newby op. cit; see also Houston, G. Discussion point, Agricultural Manpower op. cit. 1969 p. 43.

46. Op. cit.

47. Op. cit.

their reasons for leaving farms differed according to the distance moved. Workers from farms nearest to towns tended to leave voluntarily and be in the younger age groups, those from more distant farms were older, and often made involuntary moves. Before applying this to the Fife study, it should be appreciated that Gasson examined only the mobility pattern surrounding three towns. These towns differed in terms of type of employment available, and the period over which industrialisation had been taking place. Cambridge for example was well established and had a wide variety of different industries whilst Stevenage was a new town.

The Fife study was not designed to collect information of this sort. Nevertheless important differences could be observed in the employment opportunities open to migrants to the various centres. St. Andrews for example, offered a relatively limited range of alternative occupations. Workers interviewed there were either employed as greensmen or by the local authority as labourers. Cupar, Leven and Kirkcaldy offered a much wider range of employment for ex-agricultural workers, e.g. food processing, agricultural engineering and sales. There was a higher proportion of workers who had left agriculture voluntarily in towns like Cupar or Kirkcaldy. The variety of opportunities open to them in these towns had attracted them in the first place and then enabled them to benefit by their movement. An example is provided by the workers who moved to Cupar. Of these 21 workers, 15 had done so voluntarily and only three were involuntary movers. Sixteen of them had gained an increase in wages and 62 per cent of the workers were taking home more than £20 per week. The distribution of their take home pay is shown in Table 10.6.

TABLE 10.6

Take Home Pay of Ex-Agricultural Workers in Cupar

Workers	£12.50 to £14.99	£15 to £17.49	£17.50 to £19.99	£20 to £24.99	£25 to £29.99	£30 and over	
No.		3	5	6	3	4	21
Cumulative Percentage		14	38	67	81	100	

(Source: Sections 6.19, 7.03 and 8.03).

Similar analysis for St. Andrews showed that of ten workers two had moved voluntarily but seven involuntarily. Six of them had gained an increase in wages although none earned more than £20 per week. The employment opportunities open to workers around St. Andrews, unlike those around Cupar, were not sufficient to induce a high rate of voluntary mobility off farms in the area. Workers tended to be 'pushed' off farms and then have to take these jobs as the 'only job available'. (Age, health and lack of transferable skills also militated against them obtaining more rewarding jobs.[48])

Just as occupational mobility declined with age so did the incidence of geographical mobility. Older workers whether remaining in agriculture or established in industry showed reduced mobility. There was, however, an increased incidence of geographical mobility amongst workers who had left agriculture involuntarily after their fortieth birthday, since many of these workers also had to leave a tied house. Older workers also moved shorter distances, though this was less marked for agricultural workers; because of the provision of tied housing. Gallaway, Hathaway and Perkins found similar

48. See Gasson op. cit. pp 46-52.

patterns of movement in their studies. This of course adds to the problems of the older worker who leaves agriculture, since his job search tends to be limited to his immediate vicinity where employment opportunities may be few. Gallaway[49] also established that there was a positive relationship between distance moved and earnings, particularly for agricultural workers, and the Fife results confirmed this.

These findings on agricultural workers' mobility are also true of other groups of semi-skilled and unskilled manual workers. In the United Kingdom between 1953 and 1963 39.8 per cent of all geographical mobility was between houses within ten miles of each other and only 23.4 per cent moved more than 100 miles.[50] In Jefferys study recruits to plants in Battersea and Dagenham were drawn predominantly from the immediate vicinity, only ten per cent moved in from outside the London area.[51] Mackay's[52] study showed that 72.7 per cent of workers in a "small town" in Lanarkshire moved less than two miles from their last job.

The fact that few workers made long journeys to work reinforced the effects of limited geographical mobility. Of the 200 interviewees only 26 travelled more than 15 minutes to reach their place of work. Mackay[53] found that 92.5 per cent of workers in a Scottish "small town" lived within two miles of their work. Newby[54] recorded that 90 per cent of journeys to work are less than seven miles.

49. Op. cit. p. 205.
50. Harris and Clausen op. cit. p. 17; Hathaway and Perkins op. cit. p. 346.
51. Jefferys op. cit. p. 110.
52. Op. cit. p. 240.
53. Op. cit. p. 247.
54. Newby op. cit. p. 24.

The general pattern of geographical mobility which emerges from the survey is therefore one of relatively restricted movement by workers, particularly amongst ex-agricultural workers. The fact that workers tend to look for jobs within their present area means that their success is largely determined by the employment opportunities available.

10.08 Job Information

The size of the job market facing a worker will also be affected by the use that he makes of the available job information channels. If he visits his local employment exchange, for example, he will not only find lists of local jobs but also jobs in other areas of the country. He will also obtain details of government assistance for his removal expenses if he is in danger of losing his present job. The agricultural worker has the added advantage of well defined occupational roles, with jobs advertised both in the local press and specialist magazines.

The results of other surveys indicate that most manual workers make use of informal job information channels. "Informal" refers to the use of friends or relatives in finding and evaluating new jobs. They may also approach prospective employers in the hope of there being a vacancy.[55] Because of this preference for informal job information Reynolds concluded "the typical worker has .... no idea of the full range of jobs, wage rates and working conditions prevailing in the area."[56] Other studies support this view. Mackay found that plant managers were content to rely upon this rather haphazard method of recruitment, only using employment exchanges when other methods have failed - more than 50 per cent of all recruits had

55. Parnes op. cit. p. 162 ff.

56. Reynolds, L. G. The Structure of Labor Markets, 1951 p. 85.

gained their job either through friends/relatives or by enquiring at the factory gate.[57] This is especially true of job search in small compact areas.[58]

Agricultural workers in this survey did not differ in their job search methods from these other groups of manual workers. Many of their contacts are through friends and they make little use of employment exchanges.[59] In Fife none of the agricultural workers had obtained their job through an exchange and only three of the ex-agricultural workers had used this source. More than half of the agricultural workers had found their job through a newspaper advertisement, but only 16 per cent of ex-agricultural workers had used this method. This difference must have a significant bearing on the amount of information available to the two sets of workers. Over 70 per cent of ex-agricultural workers had first heard of their job through friends, or by calling on their employer. They placed a heavy reliance on methods which tend to be both haphazard in the type of job obtained and restrictive in the extent of the job market. This will be particularly true for workers who are unemployed,[60] since they often take the first available job.[61] Exposure to the urban environment increased the worker's willingness to use employment exchanges; 23 ex-agricultural workers said that they would try the exchange in future job changes. Many agricultural workers continued to view the exchange simply as a place for the payment of benefits.

57. Mackay op. cit. p. 346 ff.
58. Op. cit. p. 356-7.
59. Gasson op. cit; Newby op. cit; Hathaway and Perkins op. cit.
60. 37 per cent of workers were unemployed when leaving agriculture.
61. Wolff op. cit. p. 81.

The limitations on the amount of job information available, together with the fact that jobs usually have to be taken immediately if offered, means that most workers do not have the opportunity for careful evaluation. Bessel[62] found that 31 per cent of workers who were thinking of leaving agriculture did not know what type of job they would seek. Another 14 per cent simply specified another outside job. Of the 200 workers in the Fife study, 20 per cent said that it was the only job available to them. In the case of these workers it was a choice between taking the job and unemployment.

10.09 Housing

The type of housing available to workers must be considered alongside the other factors, e.g. lack of job information or transferable skills, age, family size and health, which affect mobility. As long as a worker remains within agriculture he will have the opportunity of occupying, on most farms, a tied cottage. In areas of housing shortage e.g. the Buchan area of Aberdeenshire this may be an important factor in recruiting staff. For some farm jobs, e.g. livestock, living 'on-the-job' had added advantages e.g. being available for calving. Disadvantages include the insecurity of a tied tenancy, and the difficulties faced by a worker trying to leave agriculture,[63] and move into council housing, which is limited in supply and available mainly to workers already in the area.[64] Amongst agricultural workers[65] in Fife 87 per cent occupied tied

62. Op. cit. p. 34.

63. Barr, J. Tied Farm Cottages, New Society 25 February 1965, p. 5 ff; Cowie, W. J. G. and Giles, A. K. Accommodation of Farm Workers, 1960; Cunningham, J. Sowing the Seeds of Misery, Guardian, 5 January 1973; Newby op. cit. p. 23.

64. Crammond, R. D. and Marshall, J. L. Housing and Mobility, Scott. J. polit. Econ. 11, 1964 p. 57 ff; Cullingworth, J. B. Housing and Labour Mobility, O.E.C.D., 1969.

65. Note these percentages apply to 89 agricultural and 85 ex-agricultural workers.

housing and only nine per cent were local authority tenants. Ex-agricultural workers showed a reverse position, with 68 per cent in local authority housing, and only seven per cent having tied tenancies.

An important implication of a worker's housing in this study was that tied housing removed one of the main search costs involved in geographical mobility;[66] since only work had to be sought and not accommodation. The Fife study suggested that this advantage may be outweighed by the insecurity of tied housing. Forty-three of the agricultural workers (56 per cent) in tied housing said that it reduced their willingness to move, even within agriculture, another ten workers (13 per cent) indicated that it would reduce their willingness to consider a move outside agriculture. Thirty-two ex-agricultural workers considered that housing was one of the reasons why they left the industry; of these, 28 (87 per cent) said that it was the insecurity of tenure which stimulated their move.

Type of housing occupied definitely affected the workers' attitude to future mobility. All workers were asked their reaction to possible future employment difficulties. Of the 57 local authority tenants who thought they would have difficulty in finding another job locally, 23 (40 per cent) said they would consider moving, 26 (46 per cent) said they would take a less suitable job and the remaining eight said they would stop work. There were 59 tenants of tied housing who did not consider that a job would be easy to find locally. Of these, 48 (81 per cent) said they would consider moving out of the area, four said they would take a less

66. Newby op. cit. p. 23.

suitable job and seven would stop work. This difference between the two groups of tenants[67] in their attitude to further mobility shows how the effects of local ties and imperfect knowledge of other jobs are amplified by the occupancy of council housing.[68]

The type of housing occupied also reduces the distance over which workers are prepared to travel as Table 10.7 shows.

TABLE 10.7

Distances Moved by Type of House Occupied after the Move (All Workers)

Distance Moved/ Type of House	Less than 10 Miles	11-30 Miles	31-100 Miles	More than 100 Miles	Row Totals
Local Authority	34 (70%)	7 (14%)	6 (12%)	2 (4%)	49
Tied Houses	23 (33%)	26 (38%)	15 (22%)	5 (7%)	69

(Source: Table 9.17)

This table shows that 70 per cent of council tenants moved less than ten miles, compared with 33 per cent of tenants in tied housing. The null hypothesis that there was no difference in the distance moved by the two groups of tenants was rejected.[69] An indication that the availability of housing tends to restrict on ex-agricultural worker's area of job search. Because council houses are easier to obtain if you already live in the authority's area the worker will only move a short distance in search of a job. If job opportunities are limited in his present area then this restriction

67. This difference was significant at the 1 per cent level; see summary of statistical results for chapter 9.
68. Crammond and Marshall op. cit.
69. This difference was significant at the 1 per cent level; see summary of statistical results for chapter 9.

will tend to work to his disadvantage.

Finally, tied housing generates involuntary mobility amongst older workers. Of the 18 workers aged over 40 who had moved house in the last five years, 17 had formerly been in tied housing. All these workers had changed their job because of either ill health, the need for a lighter job or redundancy. This is not to imply that a large number of farmers willingly evict older workers, but that no other house is available for the new worker.

To conclude, tied housing has an important role within agriculture as it provides readily available accommodation close to work in areas where alternative housing is often scarce. It also reduces the agricultural worker's search and removal costs when changing jobs. Its main disadvantage is that it does create a sense of insecurity in many workers, particularly amongst those thinking of leaving agriculture.

A DISCUSSION OF THE THEORETICAL IMPLICATIONS

The previous section of this chapter has compared the main findings of the survey with the results of other studies. It remains to evaluate what contribution the Fife study has made to the theoretical discussion outlined in chapters two to four. The following areas of theoretical debate will be discussed:-

10.10 Wage Differentials and Mobility
10.11 Workers' Job Evaluation
10.12 Methods of Job Search

10.10 Wage Differentials and Mobility

The assumptions of the classical labour market model (discussed in chapters 2 and 4) posed five questions for this study:

a) Does a wage differential exist between agricultural and industrial wages?

b) Do workers consistently move from low to high wage industries?

c) Do most workers who leave agriculture gain increased wages?

d) Does the wage offered reflect the competitive market rate?

e) Is net advantage moving towards equilibrium e.g. if a man moves to a low wage job does that job offer high non monetary rewards?

f) Is it possible to explain low agricultural wages in terms of monopsonistic power?

These questions will now be considered in the light of the data gathered in the Fife survey, with reference to other studies where relevant.

a) This question can be answered with the help of Table 8.5 where the existence of a differential between agricultural and industrial wages was demonstrated. The average wage was almost £2 per week greater for ex-agricultural workers. However, important qualifications were shown to exist. This difference in average wages was largely attributable to the 20 per cent of ex-agricultural workers taking home wages in excess of £25 per week. A similar proportion of both groups of workers took home less than £17.50 per week. These figures indicate the importance of tracing the industries to which agricultural workers moved before applying comparisons of average wages.

b) At the national level it has been shown that at least 18 per cent of the workers leaving agriculture enter industries paying wages not significantly above those in agriculture.[70] There was also a considerable return flow into agriculture, and some of these workers came from industrial groups with average wages above those in agriculture. For example, 16 per cent of workers entering agriculture

70. Gazette op. cit.

in 1967-68 came from construction industries. This evidence indicates that substantial movements take place between industries which are contrary to those anticipated from existing wage differentials. Other studies[71] have also reported inter-industrial flows of workers which are not consistent with the traditional model of the labour market.

c) In the Fife survey it was found that 44 per cent of agricultural workers and 42 per cent of ex-agricultural workers were taking home less than £17.50 per week. When the loss of fringe benefits is taken into account this must mean that a substantial group of the workers leaving agriculture do not improve their wages. Indeed 51 per cent of the workers who had just left agriculture suffered a reduction in real wages. It was only amongst workers moving within either agriculture or industry that wage gains predominated (Table 10.4). Even here an important qualification must be introduced. Improvements in wages tended to be small, with 46 per cent of all workers who gained increases received an increase of less than £2 per week. It might be argued that these relatively small changes in wages were indicative of the perfect and frictionless operation of the market. However, the evidence already advanced in the first part of this chapter as to the lack of job information, level of unemployment, the number of involuntary migrants and the degree of geographical immobility makes this explanation improbable. This finding is fully in accord with the results of other studies. Reddaway[72], for example, summarised the results of his analysis thus "workers move freely from one industry to another, without needing any significant incentive in the way of differential wages." The

71. Wolff op. cit; Jefferys op. cit; Mackay op. cit; Kerr, C. Labour Markets: Their Character and Consequences, Amer. econ. R. May 1950, p. 277 ff.

72. Reddaway, W. B. Wage Flexibility and the Distribution of Labour, Lloyds Bank R. 54, 1963, p. 32 ff.

Wolff committee[73] did find some degree of association between wages and job changing in manufacturing industries, though no consistent relationship was found to exist for workers moving between non-manufacturing industries. These results seem to indicate a somewhat indeterminate relationship between wages and mobility.

d) Within the scope and resources of the Fife study it was not possible to carry out a detailed study of the profitability, management expertise, hiring practices etc. of the employers. It is therefore impossible to reach any definite conclusion as to whether the wage paid was what might be considered the "market rate". However from observations made during the interviews, and from discussions with managers and employers certain tentative suggestions can be made. The firms and farms in the survey where relatively high wages were paid were usually characterised by a high level of management, large scale operation and efficient production.[74] The wage paid therefore, did not necessarily reflect the marginal product of the worker, but the cumulative effect of these other factors. Nor was the above average wage necessarily being paid to attract workers to the staff as traditional theory would suggest. To this extent the wage paid cannot be called the "market rate". Employers paying high wages tended to do so as a matter of policy, and not as reflection of the rate set by competitive forces in the market. Wage rates for the same job differed widely between farms in close proximity. This is not what would be expected from the traditional model. Wage rates in non-farm jobs showed the same variability.[75]

73. Wolff op. cit. chapter 6.

74. Hodsdon D. F. Labour Relations in Agriculture, University of Newcastle Agricultural Adjustment Unit T. P. 13, 1970.

75. See Robinson, D. External and Internal Labour Markets, in Local Labour Markets and Wage Structures, ed. D. Robinson, 1970, p. 48.

The existence of these differences led Mackay to conclude "It would seem therefore that the conditions prevailing at plant level may have an effect on wages in a manner which is rigorously excluded from the traditional model. Economic rationality and competitive forces are not strong enough to result in a situation where each employer pays no more and no less than the market wage".[76]

e) It cannot be assumed that workers who remained in, or moved to, low wage occupations received compensation in terms of other fringe benefits. Even in its widest sense, these workers cannot be said to have maximised their net advantage.[77] Amongst ex-agricultural workers there were few, if any, of the fringe benefits associated with agricultural employment. Workers now in routine manual jobs (e.g. roadmen and street cleaners) were amongst the lower paid. The level of job dissatisfaction was also high amongst these workers. The ex-agricultural workers who now received higher wages tended to be in more satisfying jobs, and also received better fringe benefits, e.g. a company car or better pension rights. Within agriculture the receipt of perquisites is widespread, but it was noticeable that workers on farms where wages were relatively high also tended to receive improved benefits e.g. housing was new and to a very high standard, or there was definite provision for sick pay or pensions.

f) Since the Fife survey was not stratified according to the employment opportunities available in each area it is not possible to make any definite statement about monopsonistic power exerted by employers. However, farms around towns like Glenrothes and Kirkcaldy (both towns offered a variety of jobs) did appear to offer higher

76. Op. cit. p. 391.
77. Mackay op. cit. p. 390.

rates of pay than farms in areas removed from alternative job opportunities. The possibility of monopsonistic power was mentioned by Newby.[78] Gasson also found that proximity to employment centres affected rates of pay.[79]

A wage differential between agriculture and industry has therefore been shown to exist. However, it has also been shown that large movements of workers take place between industrial sectors which cannot be directly attributed to wage differentials. Indeed the Fife survey indicated that a significant proportion of the workers who had left agriculture suffered a wage reduction. Employers offering higher wages were not necessarily responding to competitive forces in the market, since wage rates differed greatly within a small geographical area. Nor were these employers signalling for new staff, though presumably a high wage is an advantage when advertising for staff. The size of the flows of workers within the market ensures that an employer is able to vary the size of his staff by altering the ratio of recruitment to wastage (including redundancies and dismissals).[80] In conclusion then, whilst the importance of wages to individual workers is accepted and the possibility of monopsonistic power may indicate underlying market forces within broad geographical areas, the evidence so far has shown that the traditional model is open to serious qualifications. The extent to which workers evaluate jobs in terms of wages will now be considered.

10.11 Workers' Job Evaluation

The neo-classical model of the labour market presupposes that the worker carefully assesses the jobs open to him, and then

78. Newby op. cit.

79. Gasson op. cit. p. 50.

80. Gasson, R. Turnover and Size of Labour Force on Farms. J. agric. Econ. 25, 1974, p. 115 ff.

moves to the job which will maximise his remuneration. The extent to which workers seek higher wages when taking a new job may be questioned. All the studies summarised by the O.E.C.D. working party[81] found that wages were an important factor in job evaluation, but they were by no means the most important item mentioned by the workers. Wages were most important to the voluntary mobile, and to those with seniority and skill. Working conditions, a friendly atmosphere, fringe benefits, job security and proximity to home were also of importance. Bessel found that only 7.6 per cent of the workers in his survey nominated higher wages as a reason for leaving agriculture.[82] A survey carried out amongst manual workers in Australia[83] showed that not only did the workers make use of informal sources of job information, but that enquiries about jobs were frequently not primarily related to wages.

In the Fife study, 16 per cent of all workers surveyed said the job had attracted them because of the good pay, 20 per cent because it was the only job available and 35 per cent could give no specific reason for making their choice. It is significant that most workers who had taken their job because of better pay were either workers moving within agriculture, or those moving within industry. It was in these groups that there were the highest proportions of voluntary movers and the lowest incidence of unemployment.

Whilst wage considerations are therefore important, they are not seem to be the only nor, necessarily, most important factor. The extent to which wages are overshadowed by other considerations will depend upon such factors as age, skills, health, earnings, family size, and reason for leaving the last job. Those who are involuntarily

81. Wolff op. cit. p. 63 ff.

82. Op. cit. p. 34.

83. McCall, J. J. Economics of Information and Job Search, Quart. J. Econ. 84, 1970 p. 113 ff.

mobile or who are unemployed will tend to place less emphasis on wages. The availability of job information also has an important part to play. Inability to be able to give a specific reason for choosing a job should not be considered an irrational act. It may simply reflect lack of adequate information upon which to base a proper choice, and this will now be considered.

10.12 Method of Job Search

The implication of the neo-classical model of the labour market is that workers obtain information on a large number of jobs, and make a choice after evaluating the alternatives. This model presupposes that workers are aware of the alternative jobs available to them, that information is readily available on these jobs, and that the worker is able to consider each in turn.

Empirical evidence, both from the Fife survey and other studies[84] indicates that all these assumptions are open to serious question. Amongst all groups of manual workers the heavy reliance upon friends as a source of information tends to restrict job information, especially in limiting it to the immediate locality. The Fife study and that carried out by Mackay[85] showed that very few workers regarded the employment exchange as a primary source of information. All these factors must limit the ability of the worker to carry out a careful assessment of the job market. This process of shopping around may be further curtailed by other forces. In the Fife survey for example, 21 per cent of all workers were unemployed after their last job, an indication that workers may be under pressure to accept the first job offered. It is noteworthy that 20 per cent

84. Mackay op. cit; Reynolds op. cit; Parnes op. cit; Gasson op. cit; Newby op. cit; Bluestone, A. Job Finding and the Theory of Job Choice, Monthly Lab. R. October 1955, p. 1139 ff.

85. Op. cit. p. 346 ff.

of the workers said that they took their present job because it was the only one available.

It is not suggested that workers are acting irrationally in their choice of jobs, they are merely reflecting the framework within which their decision has to be made. They may also place importance on the wage offered, but the inability to compare this rate with that offered in a variety of other jobs must seriously prejudice the traditional explanation of job search.

10.13 Suggestions for the Methodology of Future Research

The points discussed below have arisen out of the experience gained in carrying out of this survey.

The county of Fife was chosen for the survey because of its varied industrial and farming activities within a reasonably compact and well defined area. This gave the opportunity of obtaining a representative sample at minimal cost, an important consideration in view of the limited financial resources available for the survey. Having said this a number of suggestions for further work can be suggested:-

1. As there was no finance available to employ interviewers the size of the sample was restricted to 200. This number was the maximum that one person could interview in one month. Since it is important to complete interviews in as short a period as possible (to avoid both the loss of selected workers through mobility and the effects of changes in local conditions through time), to increase the size of the sample would imply having more field staff. An enlarged sample would mean that examination could be extended into areas in which there is at present insufficient data for statistical analysis, e.g. mobility of owner occupants, and details of workers re-entering agriculture.

2. Field work in Fife did show the variety of agricultural and industrial employment in the county. Fife maybe said therefore, within the limits imposed by resources, to have given a reasonably representative sample. The effects of urban centres such as Kirkcaldy were also apparent. It would be a useful exercise, however, if these results could be compared with similar studies carried out in different areas e.g. Berwickshire where there are fewer industrial job opportunities than Fife, and Renfrew with its proximity to Glasgow.

3. The importance of urban centres in determining job opportunities and levels of pay emerged from the present study. Analysis of the extent of this impact was limited because the survey was not designed to evaluate the importance of individual centres. Stratification of any future sample or the inclusion of related questions would yield new information on this topic.

4. By its nature this survey was a once for all study, with no possibility of following up interviewees at a later date. It had an advantage over most previous work by both tracing ex-agricultural workers and in following mobility over several jobs. It would be extremely useful however, if the survey could be extended by means of follow up visits. This would reveal changes in the market over time, and show the extent to which workers carried out their intentions. This method would increase costs and a larger initial sample would be required to allow for workers being lost from the survey over time.

5. For reasons already mentioned the Fife survey had to be limited to personal interviews with 200 workers. The only information available on employers was generated in the preliminary postal questionnaire. If it were possible to interview employers as well

as their workers, this would provide valuable background information to the study. Details of such factors as profitability, management objectives, wage setting and turnover rates would be useful additions to knowledge. It would help show to what extent employers were aware of market forces when setting wages, and also reveal important aspects of job search.

6. Any questionnaire is essentially a compromise between the problems of length and obtaining all the necessary information. This problem is amplified by the need to obtain a truthful and unbiased response and to avoid refusals to give information. For example, in the Fife study the use of cards showing wage ranges ensured an excellent response to this question. If workers had been asked to simply give the exact amount of take home pay there may have been a number of refusals. It is accepted that an absolute value would have been useful for a number of purposes e.g. the addition of wife's pay would have given total income, but the avoidance of refusals in a sample of 200 was more critical. In a larger sample it would be feasible to ask the more direct question and risk a lower response rate. This approach would also mean that the importance of the wife's contribution to total earnings could also be assessed. In any further study an attempt should be made to attach values to perquisites received.

For workers who had been unemployed, some evaluation of benefits received would be useful. It would provide an estimate of the losses sustained, and possibly of the yardstick against which the worker measures any job offer as an alternative to further unemployment. The questionnaire might also be redesigned slightly to bring out more clearly the different experiences of those who left agriculture voluntarily, as opposed to those who were made

involuntarily mobile. In the light of experienced gained in the survey the usefulness of certain sections of the questionnaire would be improved by a more developed structure. For example, the questions on training and job qualifications could be extended to give more information on the impact of courses run by the A.H.F.I.T.B. Similarly the questions on health could be made more specific.

7. The Fife study was not designed to provide data specifically for an econometric model but it did provide new background information for future models. A larger study which gave exact values to a wider range of factors (as outlined in 6. above) could form the basis from which an econometric model of the labour market might be developed.

CHAPTER 11

SUMMARY AND CONCLUSIONS

11.01 Introduction

Chapter 10 provided a detailed comparison of the results obtained in the Fife survey with a number of other studies. It was shown how these results were broadly comparable, but also how the Fife study was able to provide new information on the movements of ex-agricultural workers. Chapter 10 also discussed the theoretical implications of the study. The purpose of this chapter, therefore, is to provide a brief summary of the results, and the implications arising from them. Detailed statistical information will not be given as this has already been fully dealt with in chapters 5 to 10.

11.02 The Survey

The Survey was carried out in the county of Fife, Scotland. Initially a random sample of 380 farmers and all non-farm employers (402) listed by the Department of Employment and Productivity in Fife were contacted. A total of 211 farmers (587 male employees) and 209 firms (184 ex-agricultural employees) replied to this postal questionnaire. From these replies a random sample of 100 agricultural and 100 ex-agricultural workers was drawn. These workers were personally interviewed in June 1972.

11.03 Summary of Main Results

There was no evidence of immobility amongst agricultural workers, and workers appeared to be able to move easily from one farm to another. When a worker first left agriculture he tended to move either into an allied industry e.g. forestry or into a general labouring job. Subsequent movement by a substantial number of

ex-agricultural workers was away from these jobs into those requiring more diverse skills, and several interviewees had risen to positions of managerial responsibility. It was these workers, able to acquire new skills and seniority, who had benefitted most from leaving agriculture. With the exception of those workers who had just left agriculture mobility decreased with age. Amongst workers in their first non-farm job were a considerable number who had left agriculture after the age of forty. This movement posed particular problems in terms of lack of transferable skills and loss of seniority.

For agricultural workers the availability of tied houses and detailed job descriptions in newspaper advertisements made long distance geographical mobility easier. Amongst ex-agricultural workers occupancy of a local authority house and the reliance upon friends or casual visits to prospective employers for job information tended to limit the distance moved to within ten miles. This restricted pattern of geographical mobility amongst ex-agricultural workers meant that the availability of local non-farm job opportunities was very important. In towns such as Kirkcaldy and Cupar, where there was a relatively wide range of jobs available, there was a much higher proportion of workers who had left agriculture voluntarily. These same workers also showed a more consistent pattern of wage gains and job satisfaction than workers in areas with fewer alternative job opportunities e.g. St. Andrews.

The categorisation of reasons for leaving the last job into forces of 'push' and 'pull' showed that in the total sample of 200 workers these forces were approximately equal. Amongst ex-agricultural workers, particularly those who had just left the industry, 'push' factors were the dominant force. Redundancy/ dismissal accounted for almost half of all 'push' factors, whilst

amongst ex-agricultural workers ill-health was an important reason. Overall, the most important 'pull' factors were higher pay, promotion, the desire to move from an isolated farm and for a change of farming system. When asked why they had chosen their present job over half of the interviewees could either give no specific reason or said that it was the only job available at the time.

A disparity in take home pay between the two groups of workers was shown to exist. It is important, however, to note that despite this difference just over 40 per cent of both groups of workers had take home pay of less than £17.50 per week. Workers who had either remained in agriculture, or who had made at least one change of job in agricultural employment, had the most consistent record of wage improvement at their last change of job. Workers who had been 'pushed' out of their last job, and particularly those who had left agriculture, tended to suffer an actual reduction in take home pay. Amongst ex-agricultural workers the total loss was often increased by a reduction in perquisites received.

In general, very few interviewees had experienced unemployment at their last change of job. The exception was those workers who had just left agriculture, who not only showed a higher incidence of unemployment but also were unemployed for longer periods. These workers did not have a previous record of unstable job holding.

The type of housing occupied had an important effect on mobility. The availability of a pool of tied houses has been shown to facilitate long distance moves. The insecurity of a tied tenancy reduces the worker's propensity to move. The difficulties of transferring from a tied house to a local authority house were a particular problem for workers leaving agriculture. Tenancy of a local authority house reduced the willingness to consider further

geographical mobility, even if this meant remaining in an area in which there were few alternative jobs.

11.04 Policy Postscript

The Fife survey provided no evidence of undue immobility in the agricultural labour market, though two possible areas of concern for policy makers were evident. The first was the number of men who had left agriculture in their late twenties or early thirties, often from posts of responsibility, to take jobs elsewhere. Their subsequent successful career in these jobs was an indication both of their adaptability and skill. It was not within the scope of the Fife study to relate this loss of skilled manpower to the manpower requirements of agriculture in Fife. Other studies quoted in previous chapters have shown, however, that it is this type of worker whom the industry can least afford to lose. It will require some degree of restructuring to overcome the problems resulting from the lack of steps in the agricultural job ladder and pay scales. The second problem involved the older worker who left agriculture with few transferable skills, and possibly suffering from ill-health. His transfer would be eased if the housing problem were removed, and also if steps were taken to make him more aware of the retraining facilities available.

Tied housing definitely caused a sense of insecurity amongst many of the agricultural workers interviewed, and 32 per cent of the ex-agricultural workers considered that it was one of the reasons why they left the industry. Local authority housing did not provide an entirely satisfactory substitute since housing rules tended to restrict entry, and retard mobility of existing tenants. Clearly agriculture requires that certain workers, particularly stockmen, should be within easy reach of their job, since they are often

required to attend at irregular and unsocial hours. It is important that the farmer should be able to provide housing for this type of worker. This objective only seems feasible if the tenancy of these houses is tied to the specific jobs. It is not so important that arable workers are housed on the farm, and these might travel from a council house or other rented accommodation if a tied house were not available on the farm. Many of these problems do not arise in industries like mining because there is a much bigger stock of tied housing available for workers so that ex-employees are not under such pressure to move out. Also there is not such a direct employer-employee link, and conditions of employment are often set out much more precisely. A number of large estates (e.g. Warnford Estate, Hampshire) have a larger pool of houses and do offer definite contracts setting out conditions of tenure, thus reducing insecurity. Even on smaller farms a clearly written contract of employment which contained conditions of tenure for tied housing would remove much uncertainty. Finally, local authorities might adopt a uniform procedure for dealing with the former tenants of tied houses. The adoption of such measures would reduce the anxieties felt by those leaving the industry.

The interviewees relied mainly upon informal sources of job information and had little contact with employment exchanges. This meant that their knowledge of jobs outside their locality or of retraining schemes tended to be very imperfect. It is important that both workers and employers should come to regard the employment exchange as a place for obtaining information about worthwhile jobs, and not merely unemployment benefit. Workers should also be made more aware of the grants available to them, both for retraining and for transferring to jobs in other areas.

11.05 Conclusions

Chapters 10 and 11 have provided a summary of some of the main points arising out of the data gathered in the survey, and these have been related to the findings of other surveys. The theoretical implications have also been considered. It is now proposed to draw these themes together.

The pattern of industrial mobility revealed in the survey was one of workers leaving agriculture predominantly for related industries, e.g. forestry and groundstaff, or for unskilled manual tasks. Where workers had made more than one job change it tended to be into more skilled employment with better long term prospects e.g. management and sales staff. This movement was selective, with the worker who had left agriculture whilst still relatively young and now in his second or subsequent job, having made the most substantial gains, both in job status and earnings. The older migrant is both less versatile in learning new skills and often less acceptable to prospective employers.[1] The migrant who does not learn new skills may return to agriculture, though it was not possible to determine whether these workers received lower wages than during their previous agricultural employment, as an American study[2] had suggested. The survey indicated that a substantial number of the workers who had left agriculture after reaching 40 years of age (many were involuntary movers) had entered jobs with little opportunity for improvement in conditions or pay. This fact had increased job dissatisfaction.

Although there is disparity between industrial and agricultural wages it is the distribution of these wages which is more

1. Smith, J. H. Analysis of Labour Mobility, in Manpower Policy and Employment Trends, ed. by B. C. Roberts and J. H. Smith, 1966.
2. Hathaway, D. E. and Perkins, P. B. Farm Labor Mobility, Migration and Income Distribution, Amer. J. agric. Econ. 50, 1968, p. 342 ff.

important. The ability of some migrants to improve earnings by moving from agriculture is illustrated by the 20 per cent taking home more than £25 per week. Workers who leave agriculture and take routine manual tasks, with little opportunity to boost earnings with overtime, account for the high proportion of migrants with less than £17.50 per week take home pay. Migrants tend to find their first jobs in low wage sectors e.g. employed by the council in labouring jobs or on groundstaff. The worker must move to a supervisory position or into such occupations as selling or transport to achieve an appreciable increase in earnings. For reasons of health, age and non transferability of skills a substantial group of ex-agricultural workers may not be in a position to achieve such an improvement.

Mobility operates in a selective manner and only a small proportion, maybe as low as 17 per cent, make a real gain in wages on first leaving agriculture. This point is amplified by the high proportion of involuntary movement out of agriculture, and the incidence of unemployment amongst these workers.[3] Only a small proportion of workers make use of official job information channels. This differentiation of skilled workers from those disadvantaged by various factors is not peculiar to agriculture. There is evidence throughout the economy of a widening gap between these groups of workers, as the number of jobs open to unskilled workers contracts.[4]

There was evidence in the Fife study that tied housing did produce a sense of insecurity, particularly where a worker was suffering from ill-health or nearing retirement. The worker who leaves agriculture and obtains local authority housing tends only to consider job opportunities in his present area. Propensity for

3. Reynolds, L. G. The Structure of Labor Markets, 1951.
4. Bosanquet, N. and Doeringer, P. B. Is there a Dual Labour Market in Great Britain? Econ. J. 83, 1973, p. 421 ff.

further movement was lowest amongst this group of interviewees, even when faced by the possibility of worsening employment prospects. In areas where there are few alternative jobs this unwillingness to move will strengthen the tendency for older workers to remain in lower wage groups.

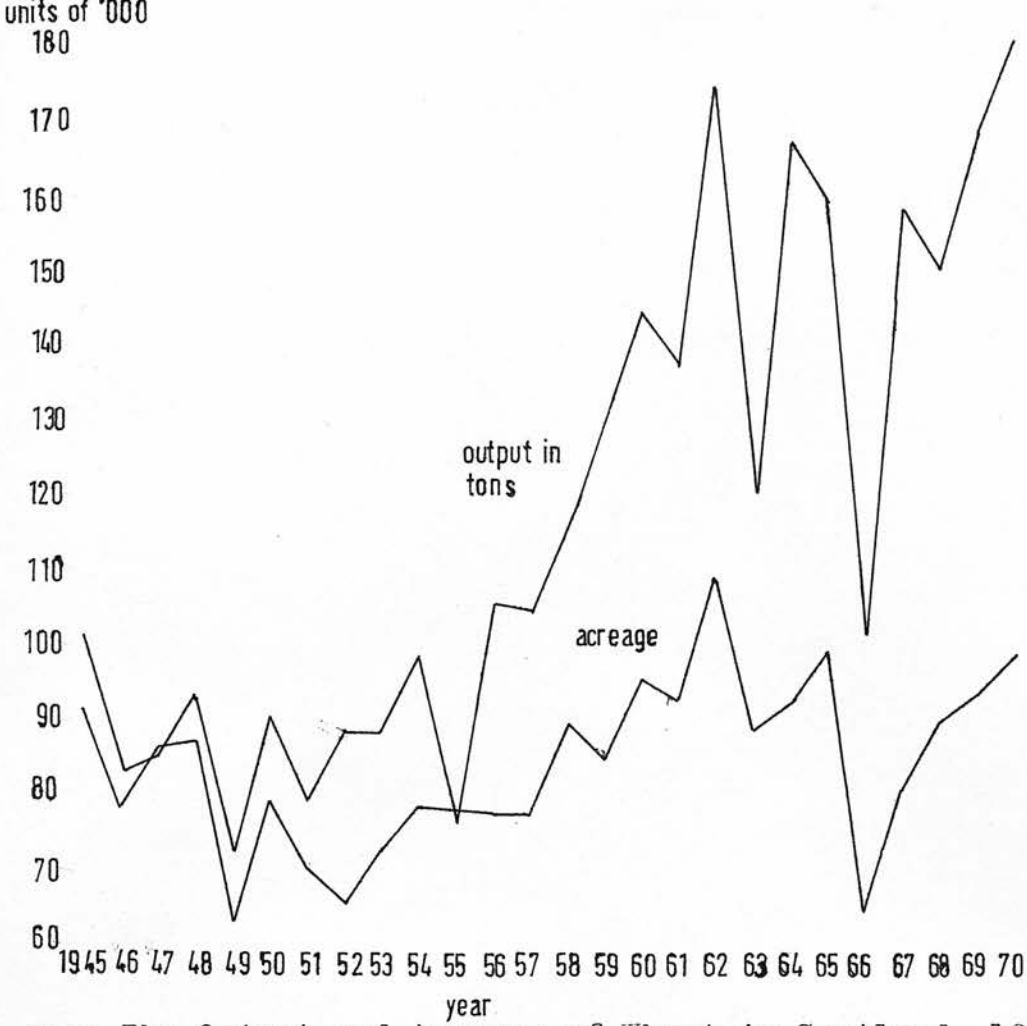
The use of press advertisements works well for the agricultural worker since job specifications within agriculture are clearly defined. The applicant for an unskilled manual non-farm job is less fortunate, as the tasks involved can be very varied and ill-defined. This change probably explains the decline in the use of advertisements by leavers, with a growing reliance upon contacts with friends and visits to prospective employers. This reduction in job information probably increases the amount of misinformed movement by ex-agricultural workers.[5]

The complexity of the gross flows between industries, the fact that many of these movements ran contrary to wage differentials, the lack of job information and the many factors other than wages which influence job choice imply that the traditional neo-classical model is too simple for the real world. The principle market imperfections found to be in operation were geographical immobility, lack of adequate job information, lack of transferable skills, unemployment, the inability to compare several jobs and certain socio-economic factors, e.g. age and ill-health. In short, it is the younger worker with transferable skills and aptitude who is able to assess the widest range of job opportunities, and so take advantage of this type of labour market. As Hathaway and Perkins noted, the market works least well for those who need it most.[6]

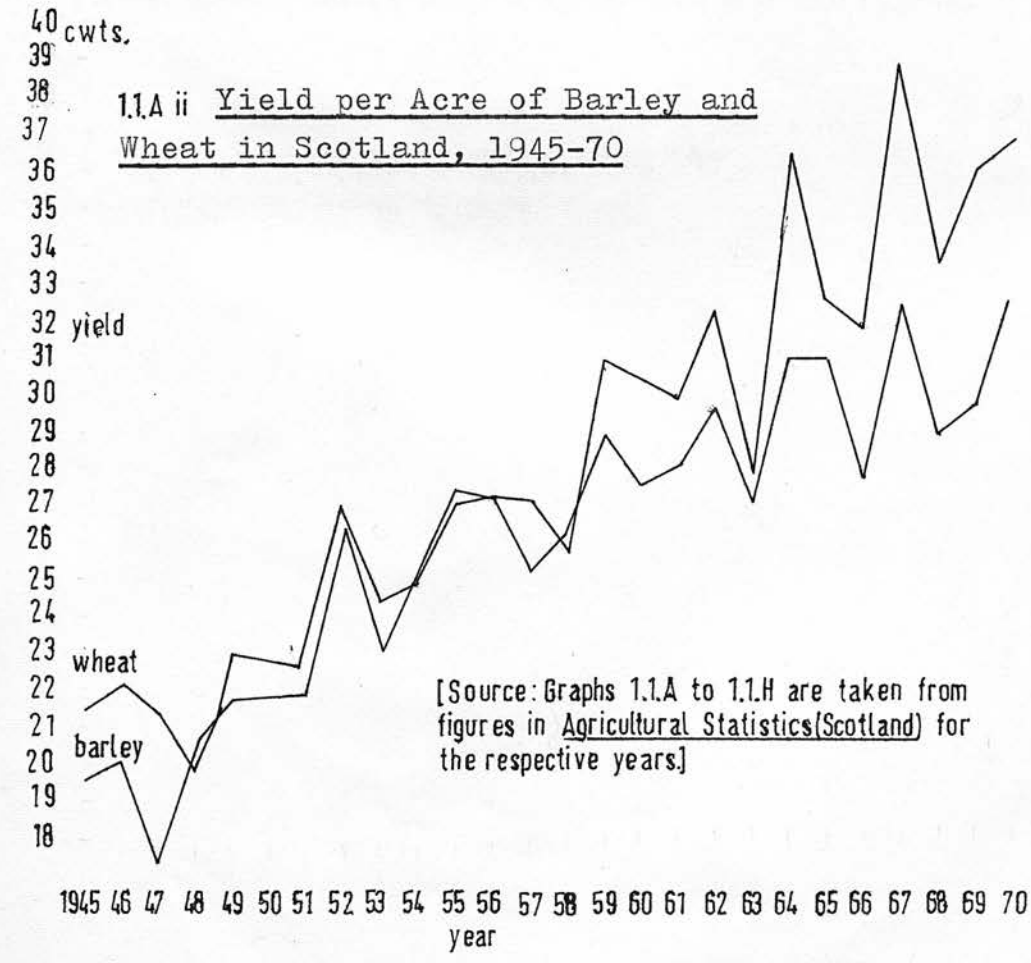
5. Gallaway, L. E. Mobility of Hired Agricultural Labor, J. Fm. Econ. 49, 1967, p. 32 ff.
6. Op. cit.

Recognising these factors which affect the mobility of workers may mean sacrificing some theoretical precision and predictive power from the model, but it does reflect more closely what is happening in the labour market.

appendix 1

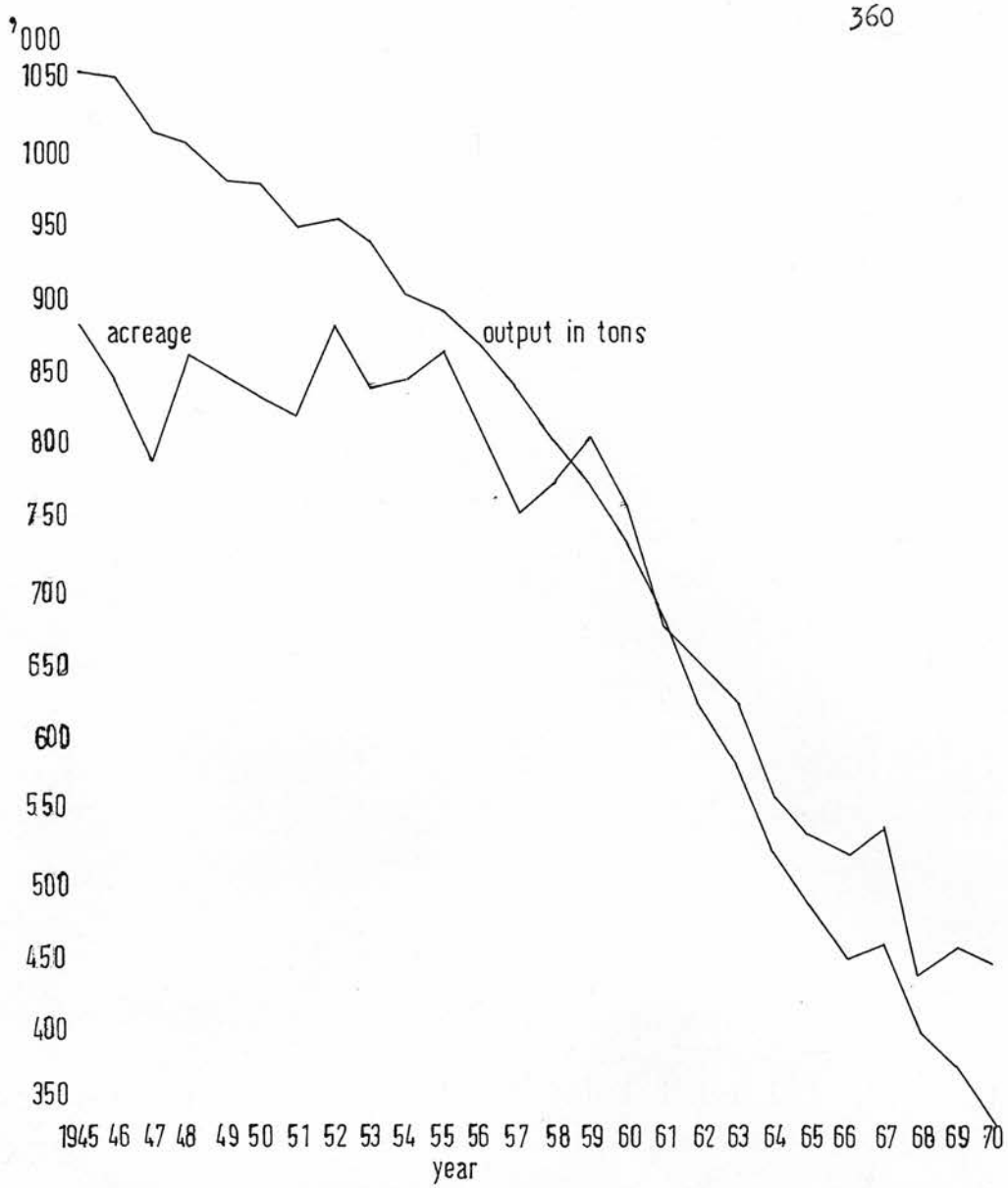


1.1.A.i The Output and Acreage of Wheat in Scotland, 1945-70

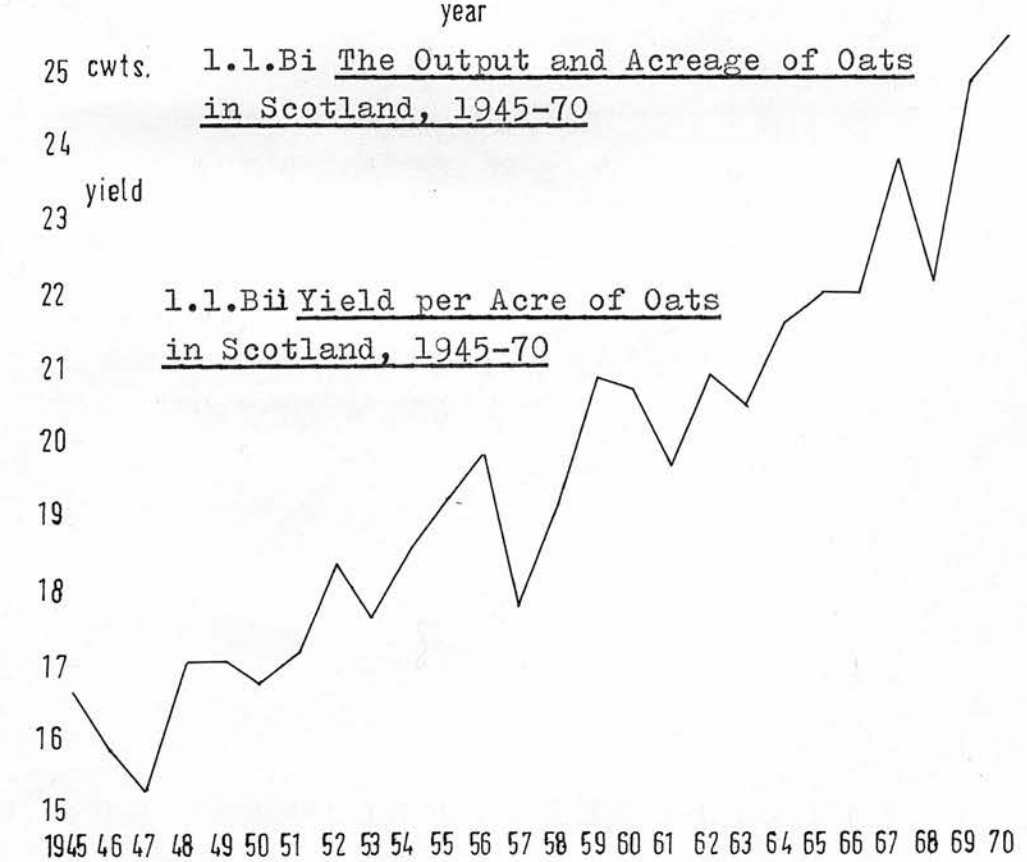


1.1.A ii Yield per Acre of Barley and Wheat in Scotland, 1945-70

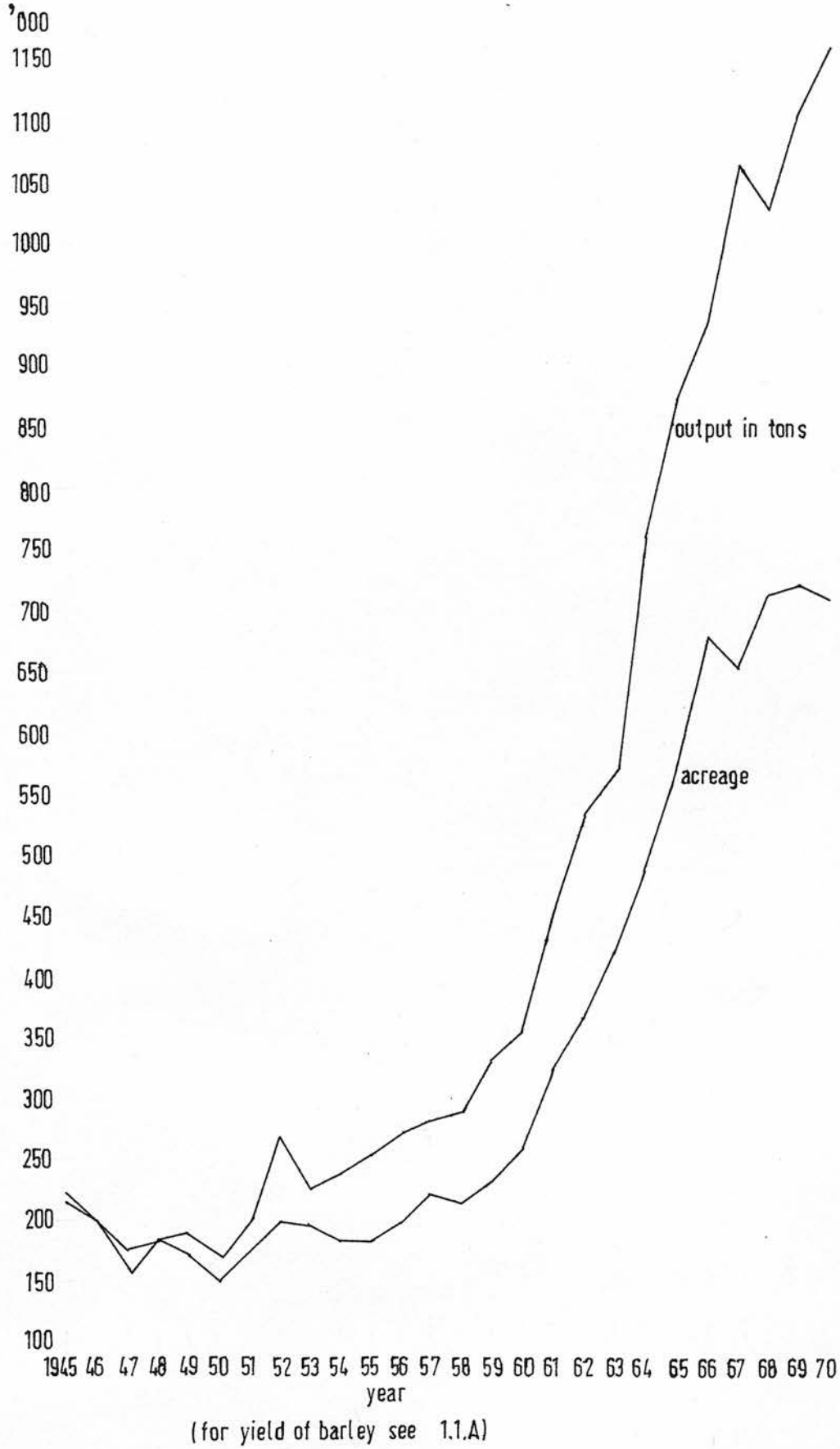
[Source: Graphs 1.1.A to 1.1.H are taken from figures in Agricultural Statistics(Scotland) for the respective years.]



1.1.Bi The Output and Acreage of Oats in Scotland, 1945-70

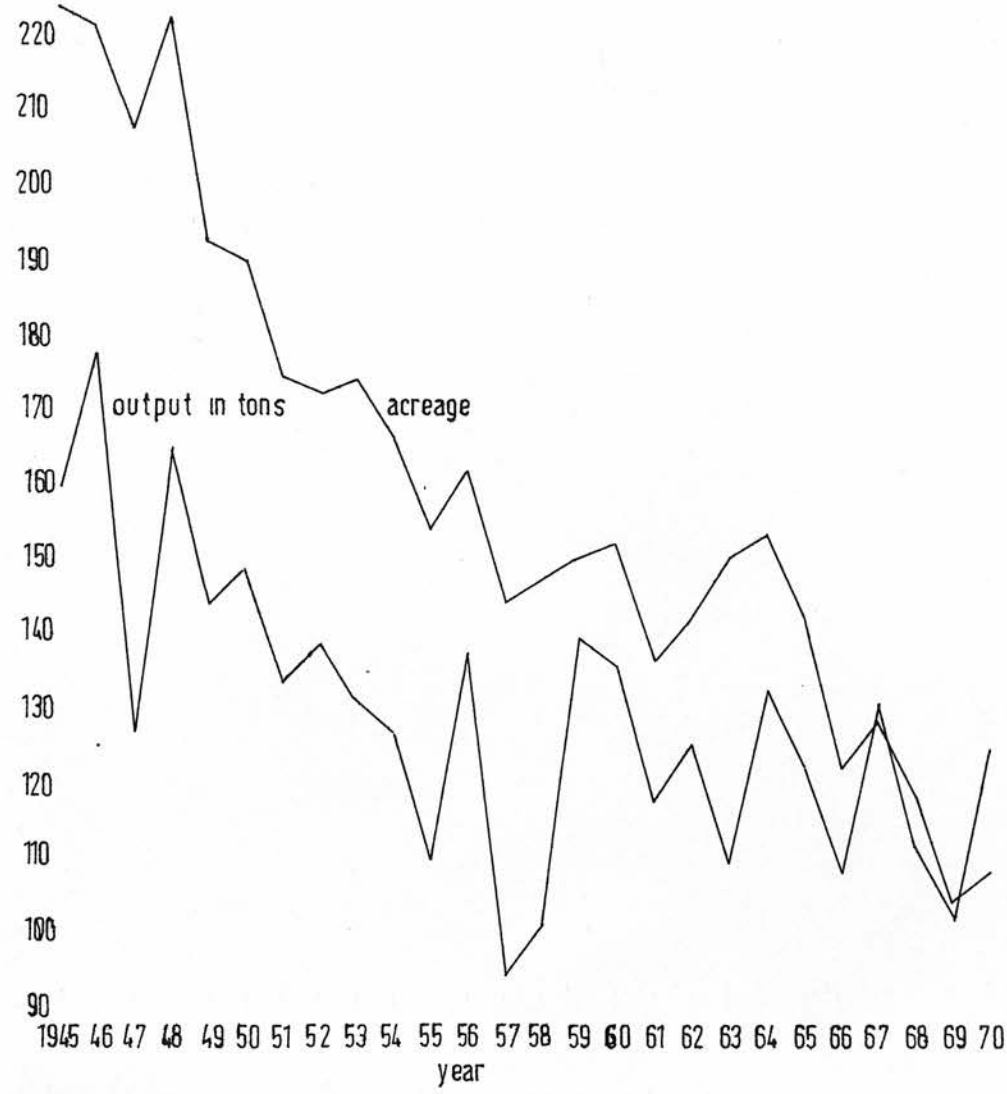


1.1.Bii Yield per Acre of Oats in Scotland, 1945-70

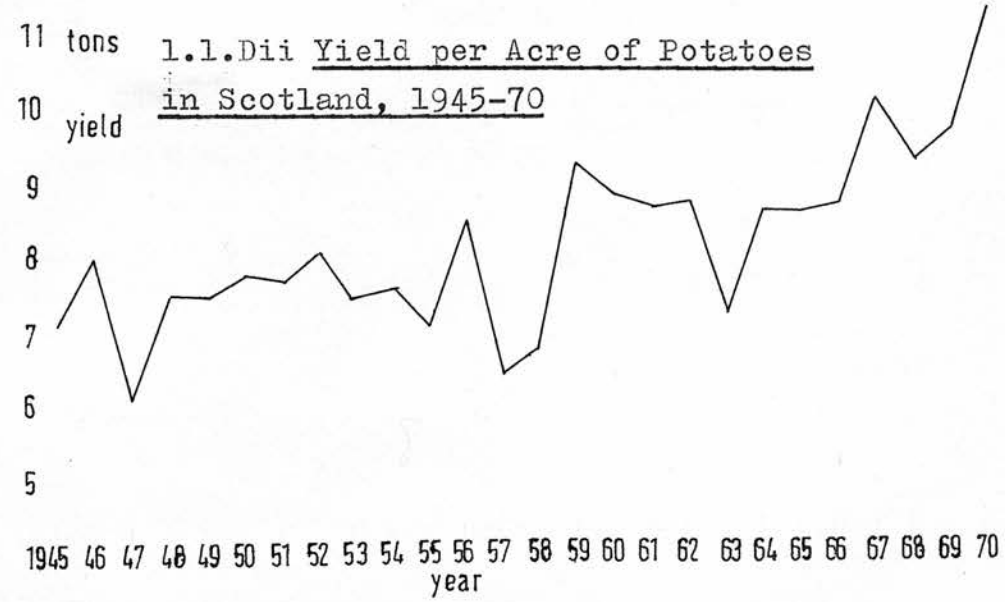


(for yield of barley see 1.1.A)

1.1.C The Output and Acreage of Barley in Scotland, 1945-70

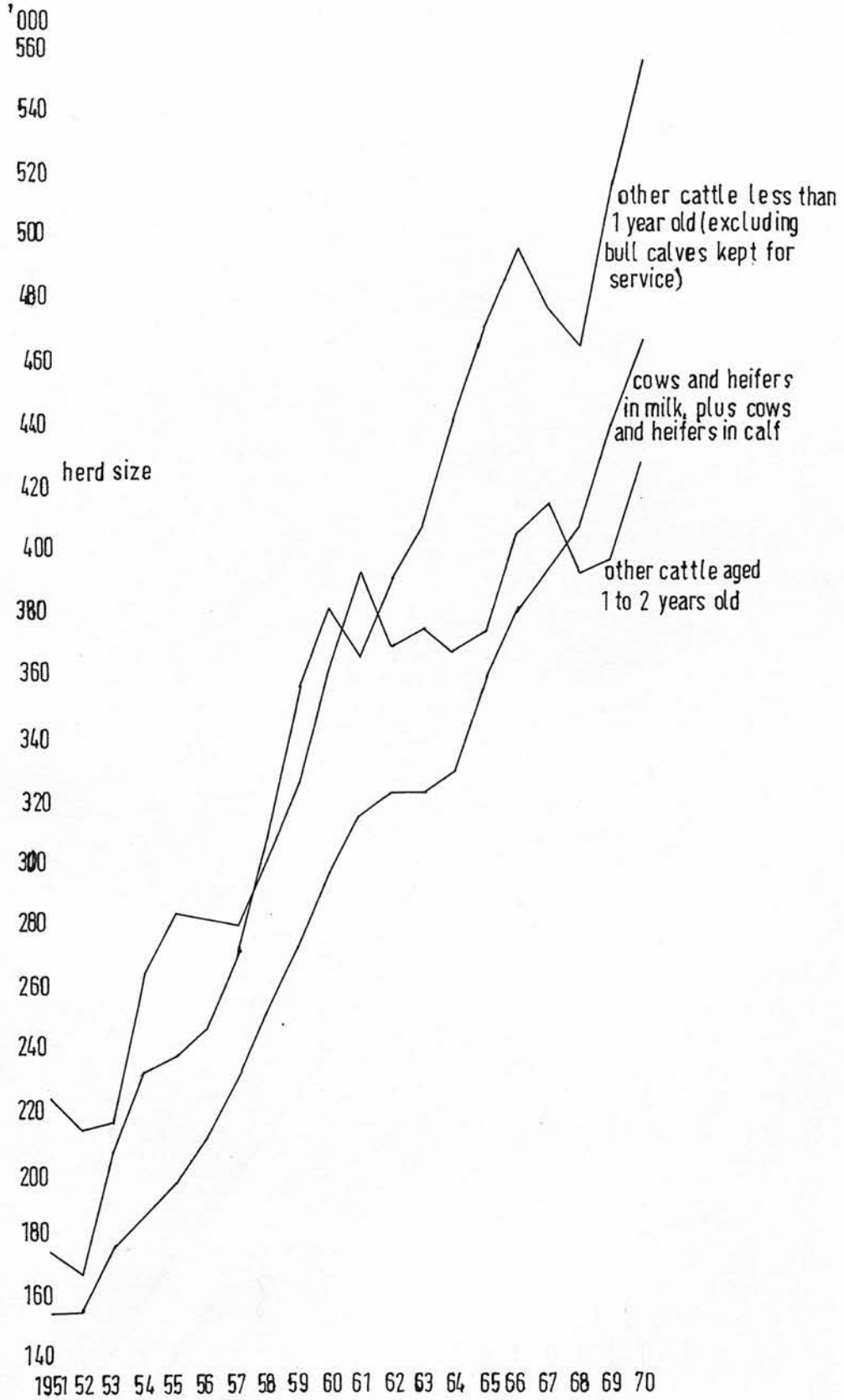


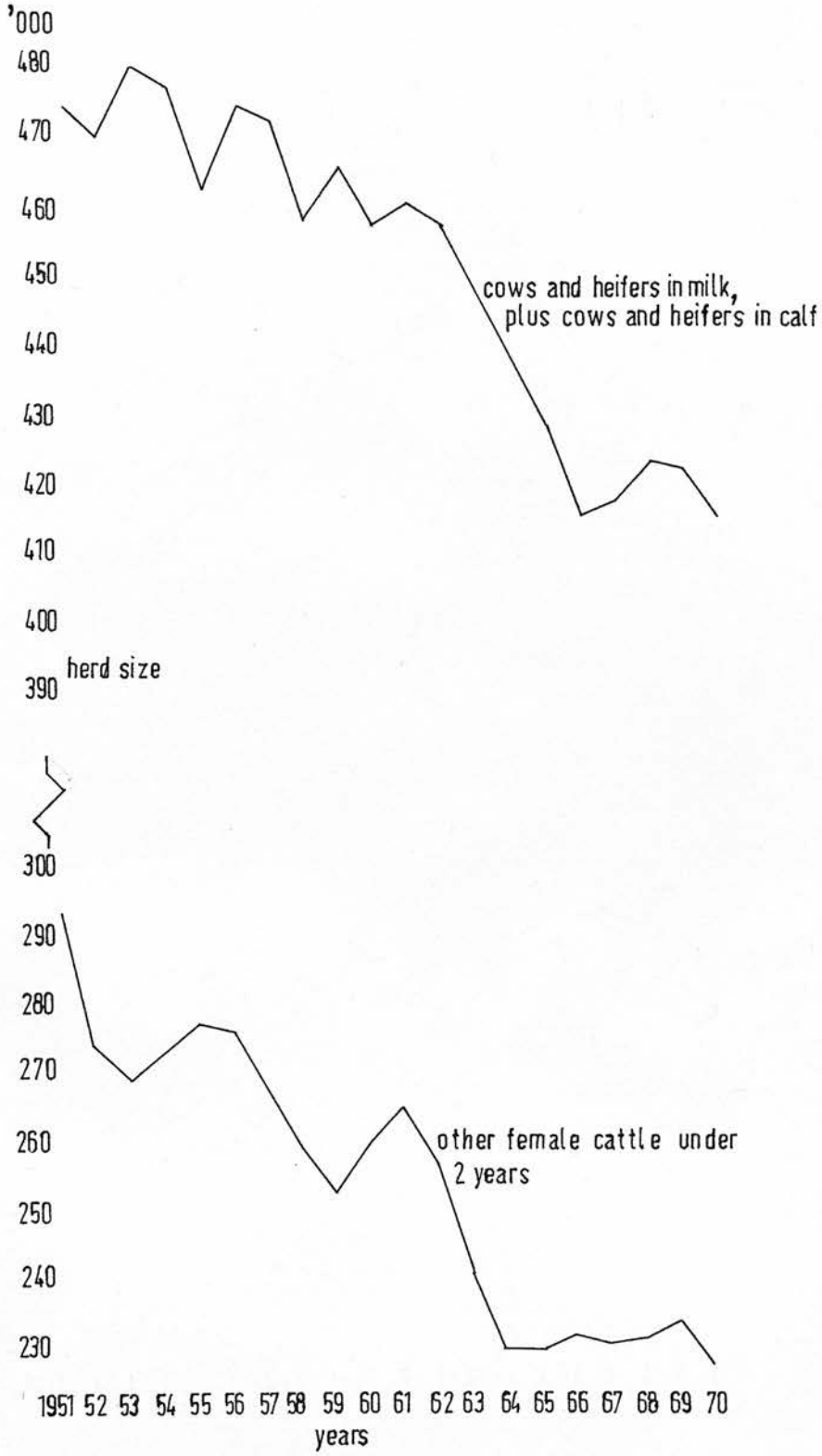
1.1.Di The Output and Acreage of Potatoes in Scotland, 1945-70
(Note: Acreage is shown in units of '000 acres but production in units of 10,000 tons; 1st. and 2nd. earlies and main crop potatoes are included.)



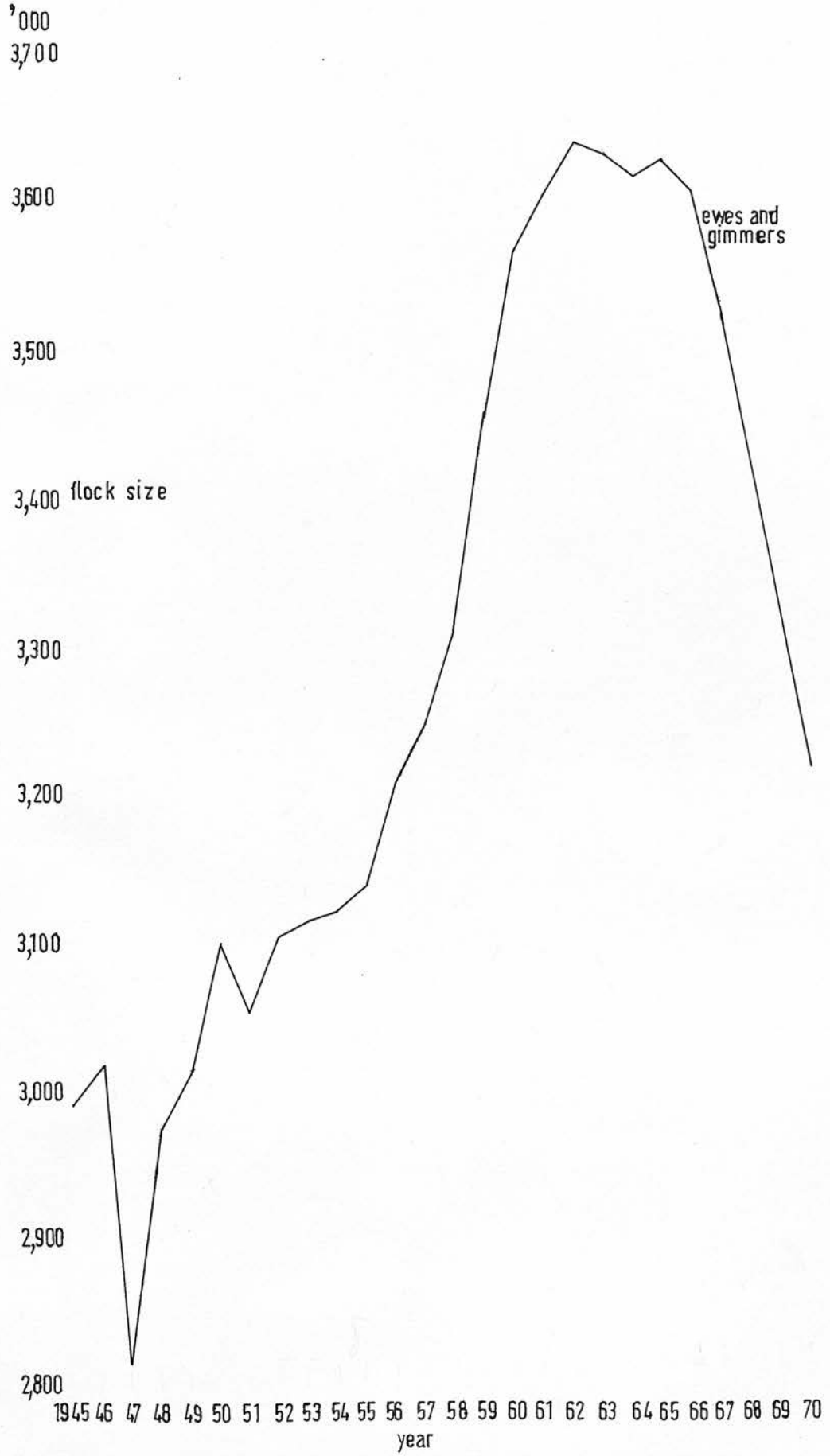
1.1.Dii Yield per Acre of Potatoes in Scotland, 1945-70

1.1.E The Number of Beef Cattle in Scotland, 1951-70



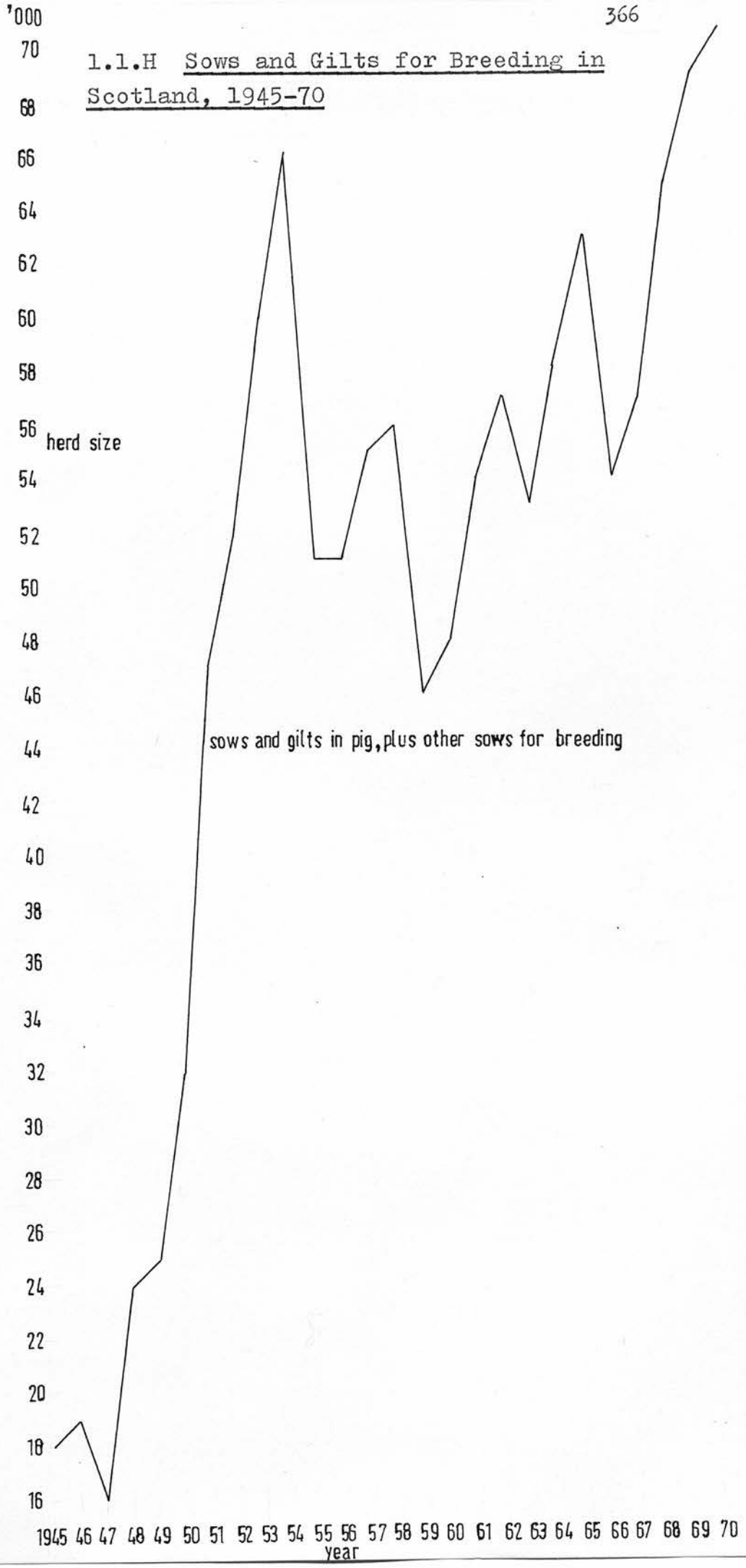


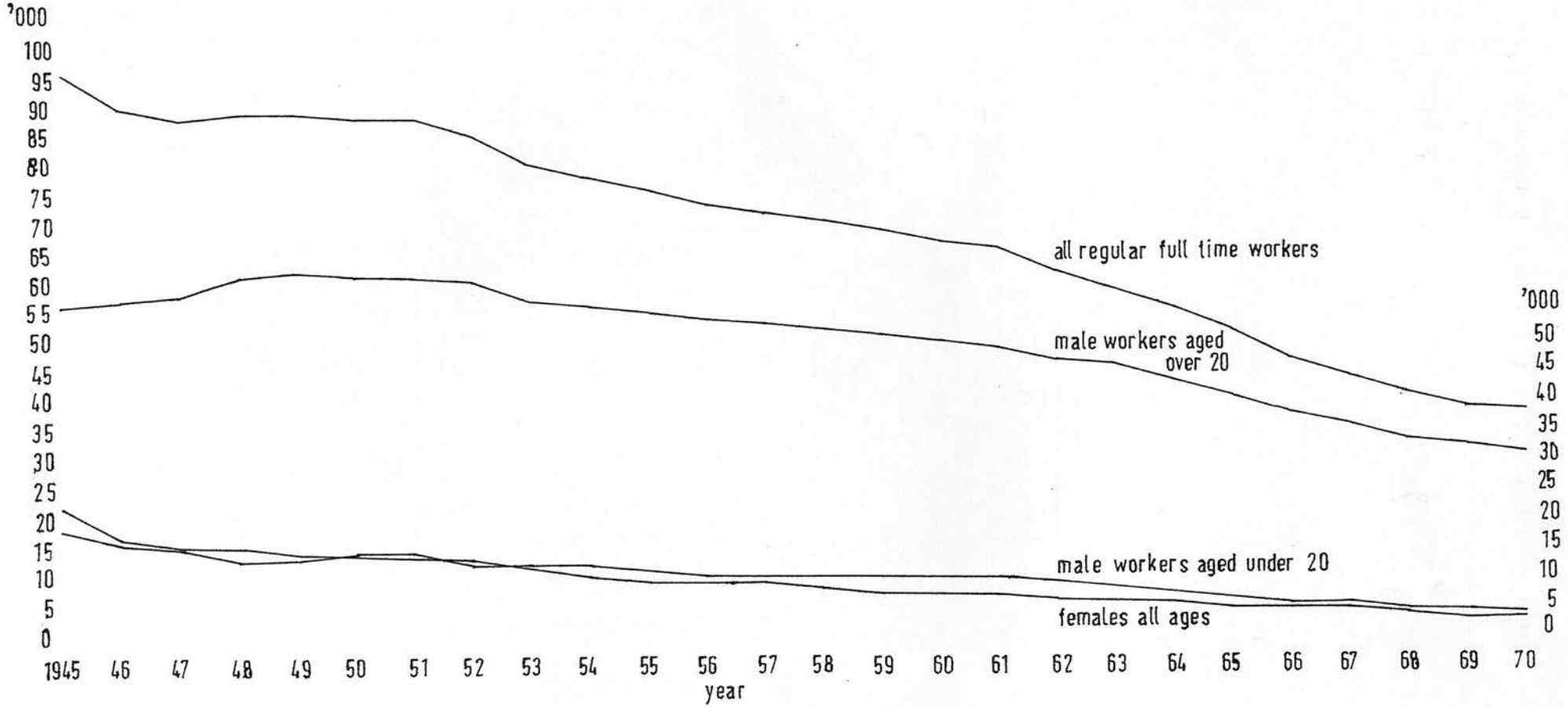
1.1.F The Number of Dairy Cattle in Scotland, 1951-70



1.1.G The Number of Ewes and Gimmers in Scotland, 1945-70

1.1.H Sows and Gilts for Breeding in Scotland, 1945-70





1.2 Regular Full-Time Workers in Scotland 1945-70

Note: (1) 1945 figures include prisoners of war and Women's Land Army; (2) 1945-55 figures define men as over 21 years; 1956-70 figures define men as over 20 years.

(Source: Agricultural Statistics (Scotland), H.M.S.O., for respective years)

Age Group	Year			
	1931	1951	1961	1966
Up to 20	29.5	20.0	16.9	13.0
21-24	14.0	10.0	12.2	11.0
25-34	21.5	21.5	18.9	19.0
35-44	13.0	19.5	17.4	20.0
45-54	10.5	15.0	17.6	19.0
55-65	8.0	9.5	12.9	18.0
65 and over	3.5	4.5	4.1	N/A

1.3.A Percentage Age Distribution of Male Full-Time Workers, 1931-51, by Decennial Population Census

Age Group	Year		
	1967	1968	1969
Up to 20	12.0	11.0	10.0
21 - 24	11.0	11.0	12.0
25 - 34	19.0	19.0	20.0
35 - 44	22.0	22.0	22.0
45 - 54) 55 - 65)	33.0	34.0	33.0
65 and over	3.0	3.0	3.0

1.3.B Percentage Age Distribution of Male Full-Time Workers, 1967-9

(Source: Agricultural Statistics (Scotland), H.M.S.O. for respective years)

Age Group	Under 18	18 and under 20	20 and under 65	65 and over	%	Total No.
Year						
1951	8.7	6.3*	79.2*	5.8	100.0	74,415
1956	8.8	6.8	79.8	4.6	100.0	63,807
1961	8.7	7.6	79.9	3.8	100.0	55,809
1962	8.3	7.3	80.6	3.8	100.0	55,976
1963	8.6	7.0	80.7	3.4	100.0	54,022
1964	8.0	6.5	82.1	3.4	100.0	47,122
1965	6.9	6.7	82.7	3.7	100.0	43,475
1966	6.4	6.3	83.3	4.0	100.0	40,648
Average Percentage Change in Numbers	-3.8	-2.8	-2.6	-4.0		-2.8

Note: * Up to 1955 the age groups were recorded as 18 and under 21, and 21 and under 65. In order to get a consistent series the data for 1951 has been adjusted.

1.4 Percentage Age Distribution of Male Full-Time Workers, 1951, 1956 and 1961-66

(Source: Agricultural Statistics: (Scotland), H.M.S.O., for respective years)

MAPS 1.5. A - F

Number of Regular Full-Time Male Workers per '000 Acres of Agricultural Land (Including Common Grazing)

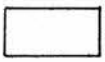
(Figures calculated from Agricultural Statistics (Scotland) for respective years.)

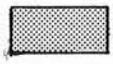
Map 1.5 A	1945	Map 1.5 D	1960
Map 1.5 B	1950	Map 1.5 E	1965
Map 1.5 C	1955	Map 1.5 F	1970

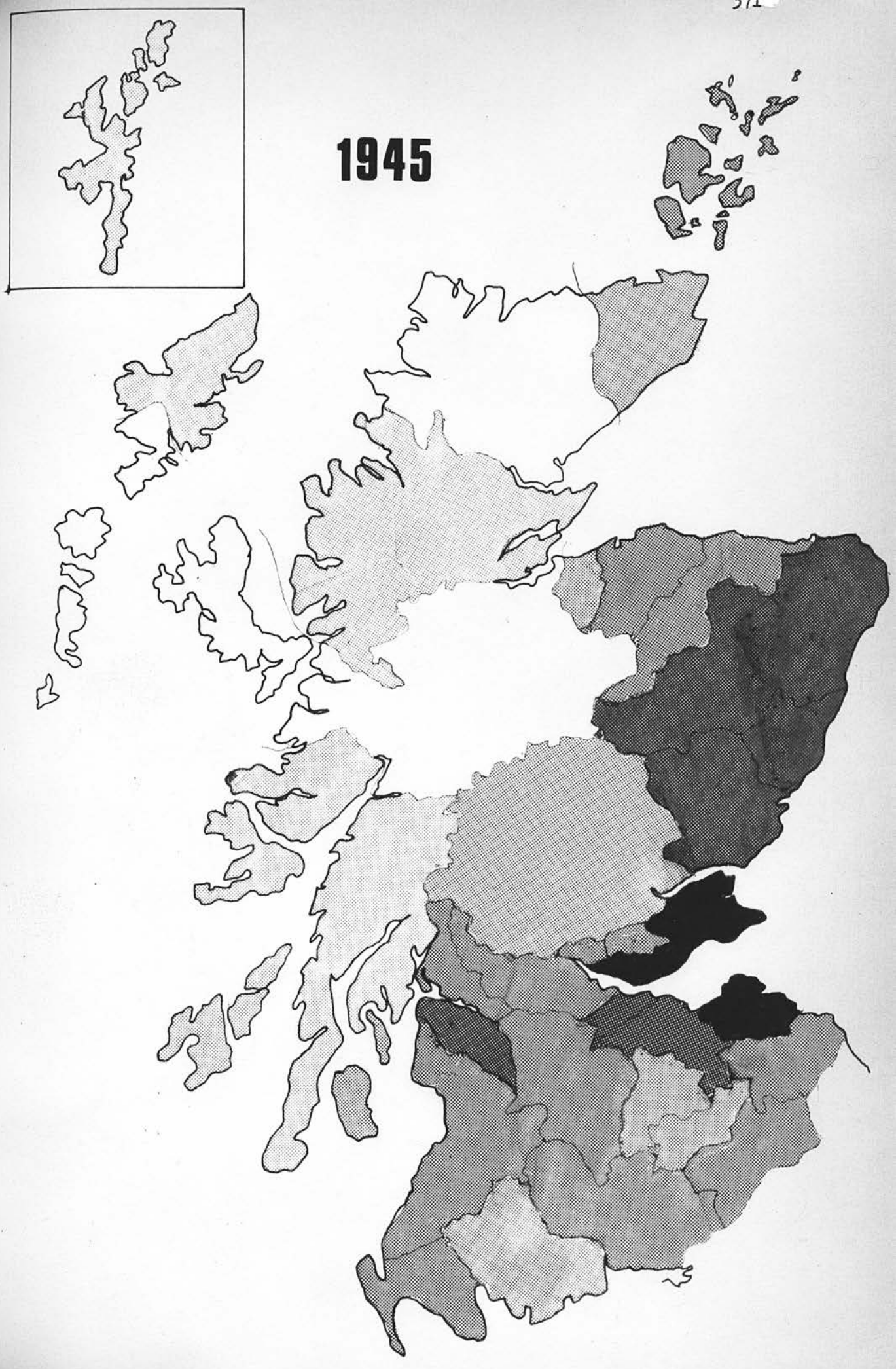
Note: The key given below refers to all these maps; lack of space made it impossible to present a key beside each map.

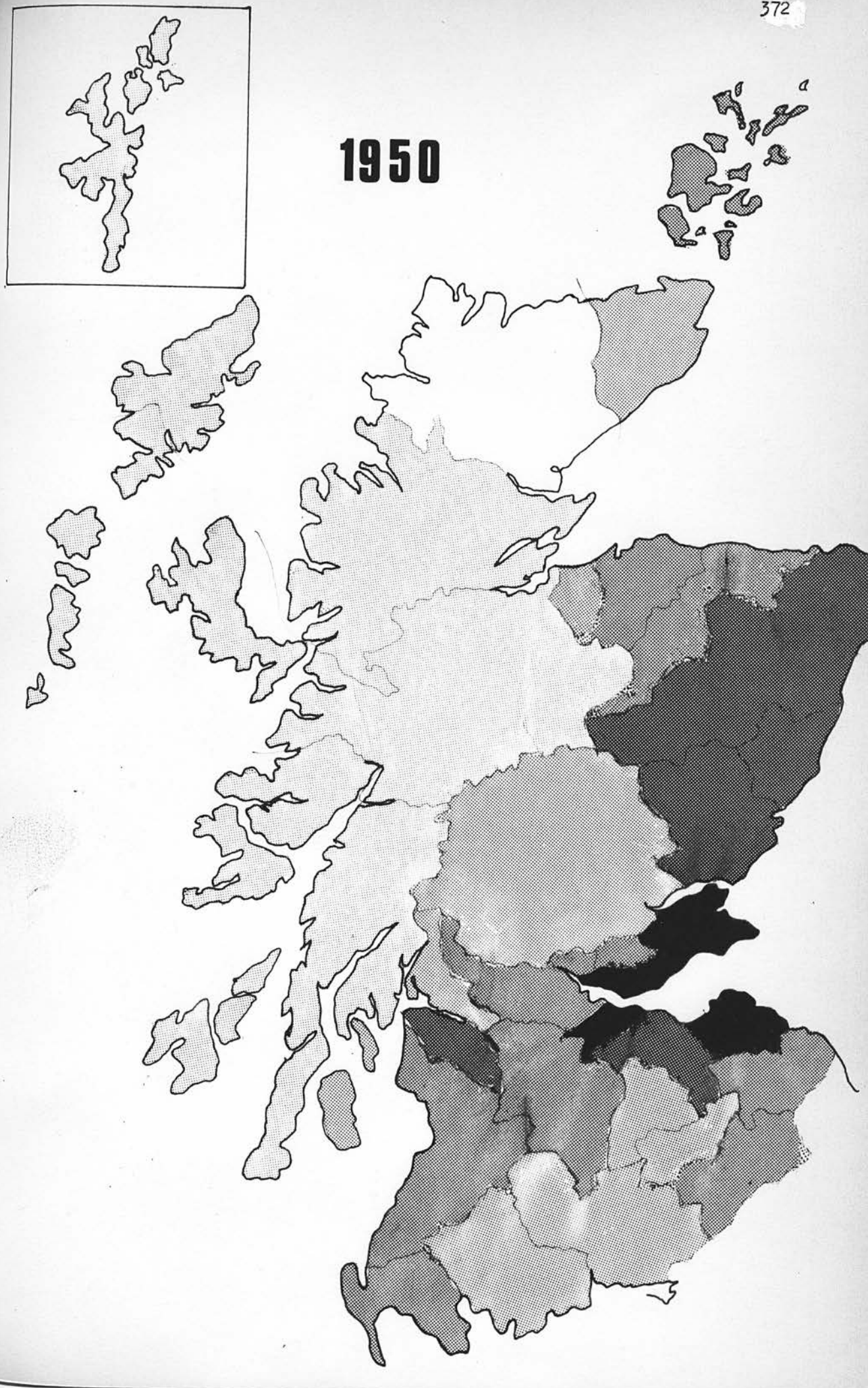
KEY

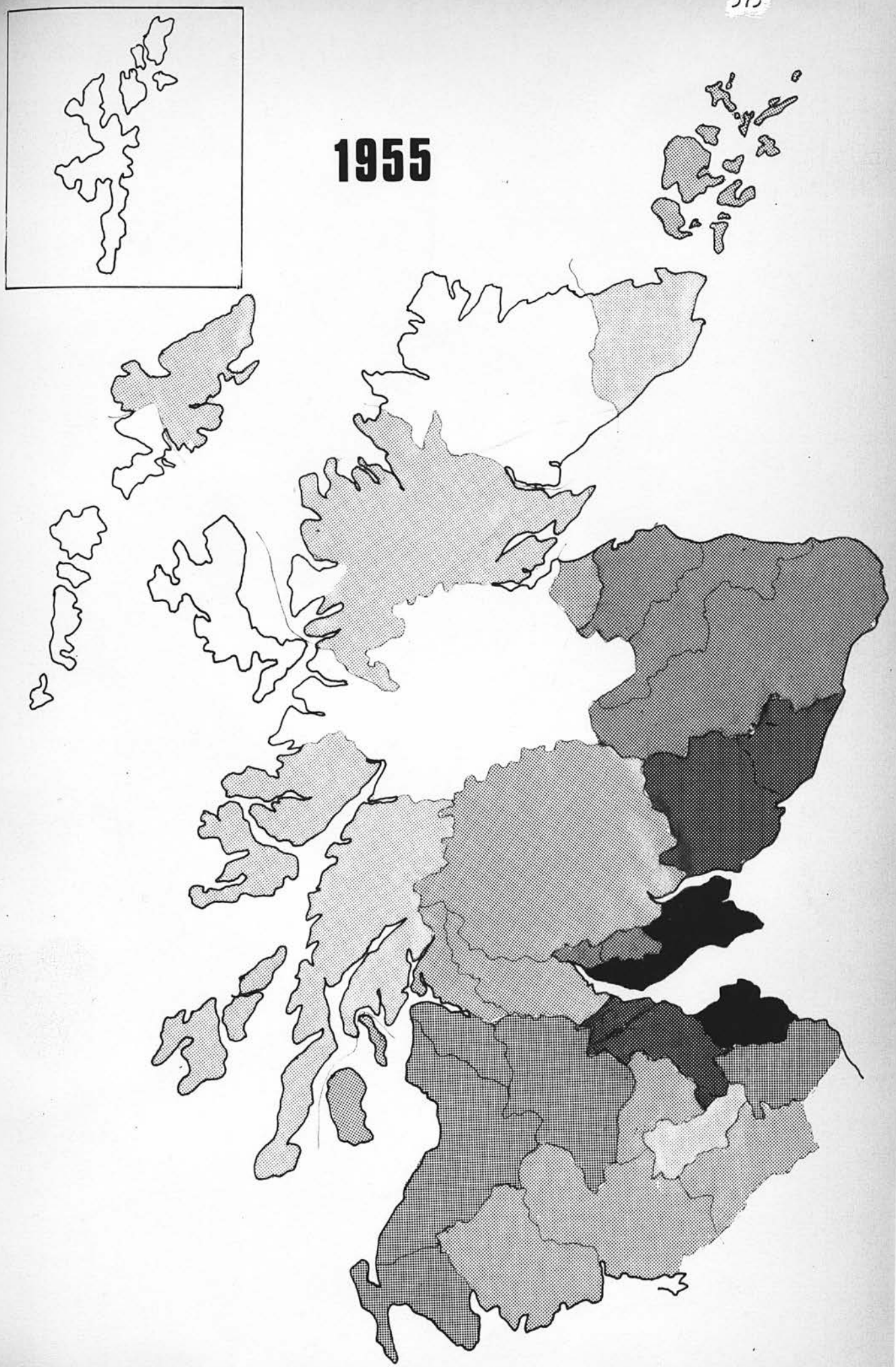
No. of full-time male workers per '000 acres of agricultural land.

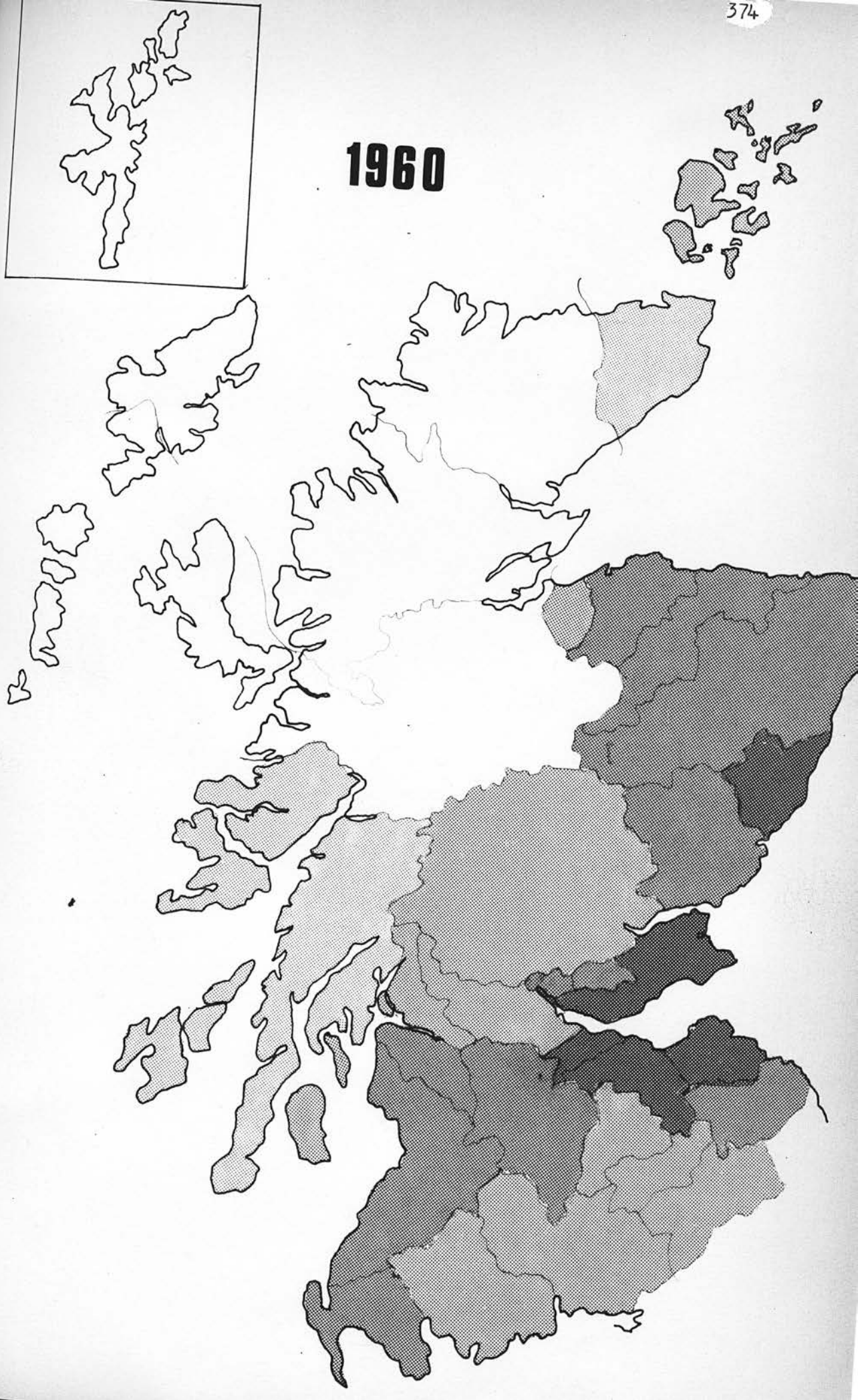


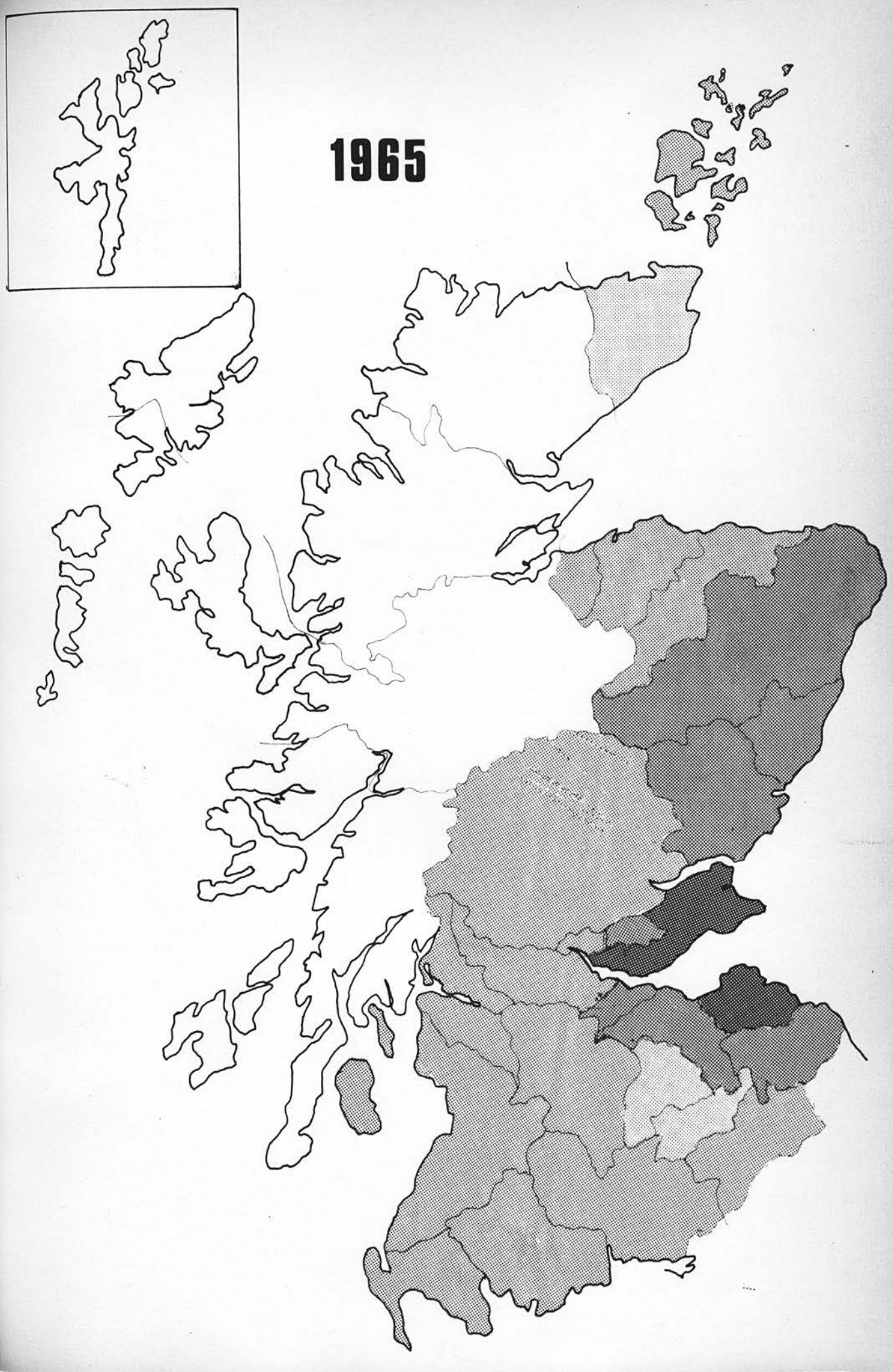


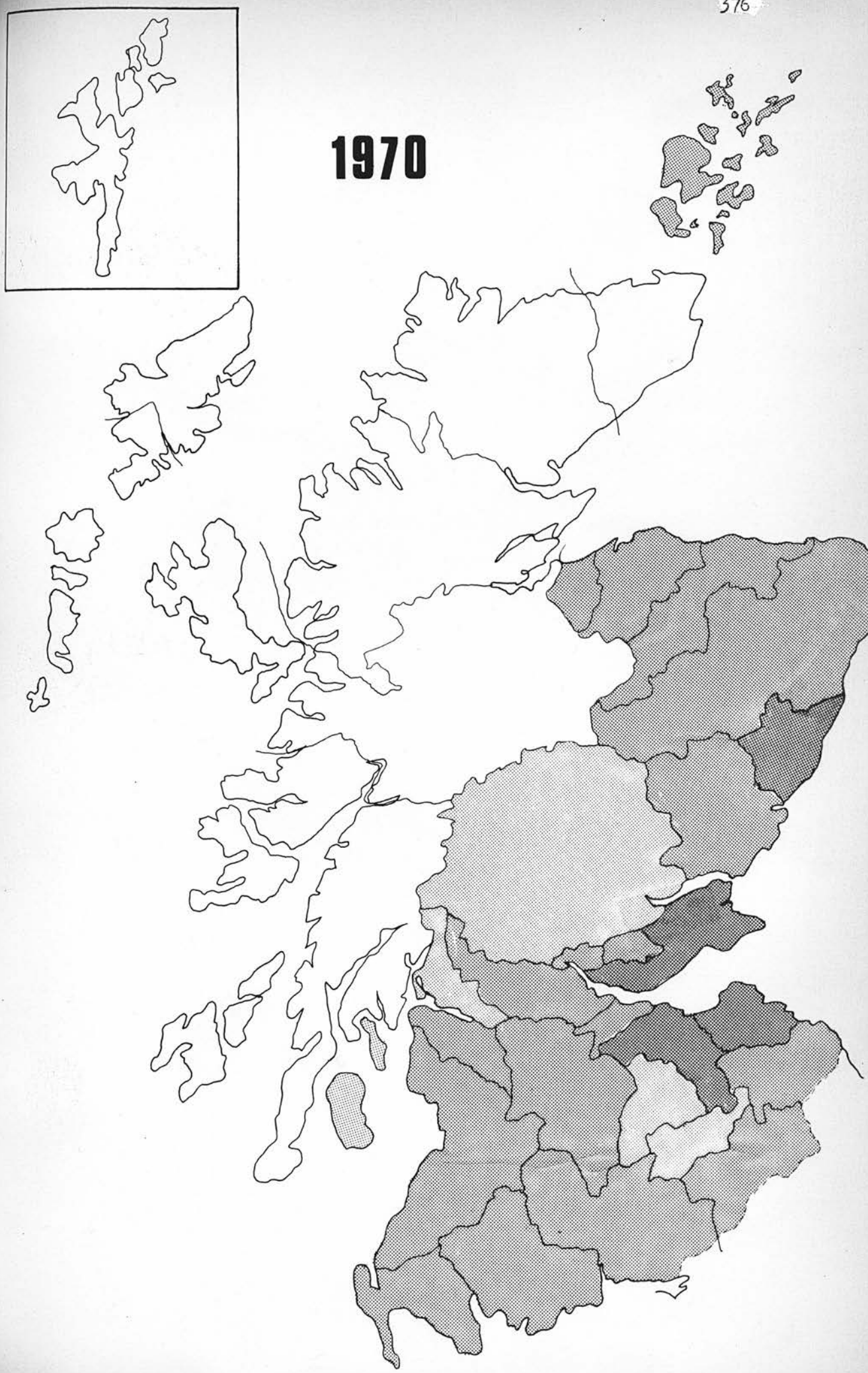

1945


1950


1955


1960


1965


1970

Region	Full-Time Workers		Part-Time, Casual and Seasonal Workers	Total Workers
	Male	Female		
Highlands	-41	-74	-19	-43
North East	-35	-66	-29	-37
East Central	-33	-67	-16	-34
South East	-36	-68	-30	-39
South West	-39	-65	-28	-42
Scotland	-37	-67	-25	-39

1.6 Percentage Changes in Worker Numbers by Region between 1951 and 1965

(Source: Scottish Agricultural Economics, 17, Table 32)

Region	Year	Full-Time Workers		Part-Time, Casual and Seasonal Workers		Total Workers	
		Male	Female	Male	Female		
		%	%	%	%	%	No.
Highlands	1951	66.9	16.2	12.8	4.1	100	11,183
	1965	68.7	7.5	15.8	8.0	100	6,387
North East	1951	75.6	11.1	11.1	2.2	100	23,688
	1965	78.9	6.1	9.9	5.1	100	14,851
East Central	1951	75.1	9.1	8.4	7.4	100	20,829
	1965	75.5	4.6	7.8	12.1	100	13,829
South East	1951	73.5	10.8	8.1	7.6	100	16,265
	1965	76.4	5.6	7.2	10.8	100	9,949
South West	1951	66.7	16.2	10.5	6.6	100	32,135
	1965	69.3	9.6	9.7	11.4	100	18,745
Scotland	1951	71.5	12.8	10.1	5.6	100	104,100
	1965	73.9	6.9	9.5	9.7	100	63,761

1.7 Numbers and Distribution of Workers by Regions in 1951 and 1965
(Source: Scottish Agricultural Economics, 17, Table 33)

Year	1951				1965			
Age Group	A	B	C	D	A	B	C	D
Region								
Highlands	7.2	6.1	78.4	8.3	4.8	5.5	82.6	7.1
North East	10.2	7.3	77.7	4.8	7.8	6.4	82.6	3.2
East Central	7.2	5.4	81.5	5.9	5.4	6.4	84.8	3.4
South East	6.6	4.6	82.2	6.6	4.9	5.9	85.6	3.6
South West	10.4	7.3	72.2	5.1	9.1	8.0	79.5	3.4
Scotland	8.7	6.3	79.2	5.8	6.9	6.7	82.7	3.7

Year	1969			
Age Group	A	B	C	D
Region				
Highlands	4	4	89	3
North East	5	5	89	2
East Central	4	4	90	3
South East	5	5	87	4
South West	7	7	84	3
Scotland	5.0	5.0	87.8	3.0

1.8 Percentage Age Distribution of Male Full-Time Workers by Region, 1951, 1965 and 1969

(Source: Department of Agriculture and Fisheries for Scotland, Unpublished Data)

Note: A - under 18
B - 18 and under 20
C - 20 and under 65
D - 65 and over

Region		Year 1965	1968
Highlands	Male	28	25.55
	Female	72	64.72
North East	Male	25	25.56
	Female	51	44.7
East Central	Male	14	14.25
	Female	26	20.56
South East	Male	12	12.04
	Female	21	16.81
South West	Male	24	24.80
	Female	43	42.15
Scotland	Male	20	20.46
	Female	42	36.85

1.9.A. Family Workers as a Percentage of All Workers by Regions, 1965, 1968

(Source: Agricultural Statistics (Scotland), H.M.S.O., for respective years

Type		Year		
		1962	1965	1969
Hill sheep	Male	9.96	10	9.0
	Female	56.19	47	36.0
Upland	Male	18.0	18	21.0
	Female	50.0	54	53.0
Rearing with Arable	Male	22.36	25	26.0
	Female	53.07	56	53.0
Rearing with Intensive Livestock	Male	25.23	35	24.0
	Female	48.99	65	40.0
Arable Rearing and Feeding	Male	11.32	23	22.0
	Female	21.96	48	46.0
Cropping	Male	20.53	12	11.0
	Female	39.82	21	17.0
Dairy	Male	13.09	23	24.0
	Female	14.28	39	40.0
Intensive	Male	20.88	15	12.0
	Female	41.73	15	10.0
Part-time and Spare time	Male	66.47	46	44.0
	Female	86.77	77	72.0

1.9.B Family Workers as a Percentage of All Regular Workers by Types of Farm, 1962, 1965 and 1969

(Source: Agricultural Statistics (Scotland), H.M.S.O. for respective years)

Year	1965				1967			
Age Group	A	B	C	D	A - B	C	D	
Type	Percent				Percent			
Hill Sheep	4.4	3.8	88.0	3.8	8	89	3	
Upland	6.1	6.1	83.7	4.1	10	87	3	
Rearing with livestock	7.3	6.1	83.2	3.4	10	87	3	
Rearing with Intensive Livestock	11.2	7.0	78.1	3.7	15	83	2	
Arable Rearing and Feeding	5.7	5.9	84.2	4.2	10	87	3	
Cropping	4.3	5.3	87.1	3.3	8	89	3	
Dairy	8.7	8.4	80.2	2.7	15	83	2	
Intensive	9.6	8.5	77.7	4.2	15	81	4	
All Full-Time Farms	6.9	6.7	83.0	3.4	12	85	3	

Year	1969			
Age Group	A	B	C	D
Type	Percent			
Hill Sheep	3	4	89	4
Upland	4	5	88	3
Rearing with Livestock	4	4	88	3
Rearing with Intensive Livestock	4	7	88	2
Arable Rearing and Feeding	5	4	88	3
Cropping	3	4	90	3
Dairy	7	6	84	2
Intensive	9	6	81	3
All Full-Time Farms	4.88	5	87.0	2.88

Note: A - under 18; B - 18 and under 20; C - 20 and under 65
D - 65 and over

1.10 Distribution of Male Full-Time Workers by Type of Farm, 1965, 1967, 1969
(Source: D.A.F.S. - unpublished data)

		1949/50	1955/6	1960	1965	1970 (£)
Grieves	A		138/-	170/7	221/9	14.87½
	B		163/11	198/9	255/4	17.58
	C	130/8	184/9	220/8	278/1	18.85½
Shepherds	A		141/-	174/2	222/10	14.87½
	B		154/9	185/8	239/6	16.11
	C	122/9	177/2	208/11	262/8	17.53½
Dairy Stockmen	A		138/-	170/7	218/-	14.24½
	B		170/3	211/9	263/5	18.43
	C	120/3	194/-	236/4	292/7	20.17
Other Stockmen	A		138/-	170/7	218/-	14.24½
	B		151/10	186/6	247/2	16.74
	C	120/3	170/-	209/4	267/1	18.15
Tractormen	A		137./6	168/7	211/10	13.50½
	B		145/1	177/9	226/6	15.67½
	C	114/1	162/-	195/1	245/5	16.72
General Workers	A		125/10	152/3	194/5	12.61
	B		137/3	165/5	209/5	14.41½
	C	106/8	152/7	182/7	230/3	15.57

Note: A - Minimum cash

B - Total cash *

C - Total earning //

* Total cash wage = regular cash wage + seasonal overtime + bonuses

// Total earnings = total cash wage + stat. and non-stat. benefits and figures

1.11 Relative Wage Structure of Full-Time Male Workers by Type of Worker, 1949/50, 1955/6, 1960, 1965, 1970

(Source: Scottish Agricultural Economics, for respective years)

Number of Full-Time Workers	Full-Time Farms			Full-Time Workers on Full-Time Farms						
	1952/53	1961/62	Change between 1952/53 and 1961/62	Hired Workers 1952/53	Hired Workers 1961/62 as percentage of 1952/53 total	Family Workers 1952/53	Family Workers 1961/62 as percentage of 1952/53 total	All Workers 1952/53	All Workers 1961/62 as percentage of 1952/53 total	Change between 1952/53 and 1961/62
0	18.2	23.6	+29.7	-	-	-	-	-	-	-
1	24.7	28.3	+14.6	7.0	6.7	20.8	26.2	9.7	10.5	+ 8.2
2	21.3	18.3	-14.1	13.1	10.8	30.7	27.1	16.5	13.9	-15.8
3,4	19.9	15.7	-21.1	25.0	18.6	32.3	25.4	26.4	19.9	-24.6
5-9	13.0	11.1	-14.6	36.0	28.8	13.6	13.7	31.4	25.9	-18.3
10 and over	2.9	3.0	+ 3.4	18.9	18.7	2.6	2.8	15.7	15.6	- 0.6
All sizes	100.0	100.0	-	100.0	83.6	100.0	95.2	100.0	85.8	-14.2

1.12 Percentage Distribution of Full-Time Farms and Workers by Size of Labour Force, 1952/53 and 1961/62

(Source: Scottish Agricultural Economics, 13, 1963, Table 129)

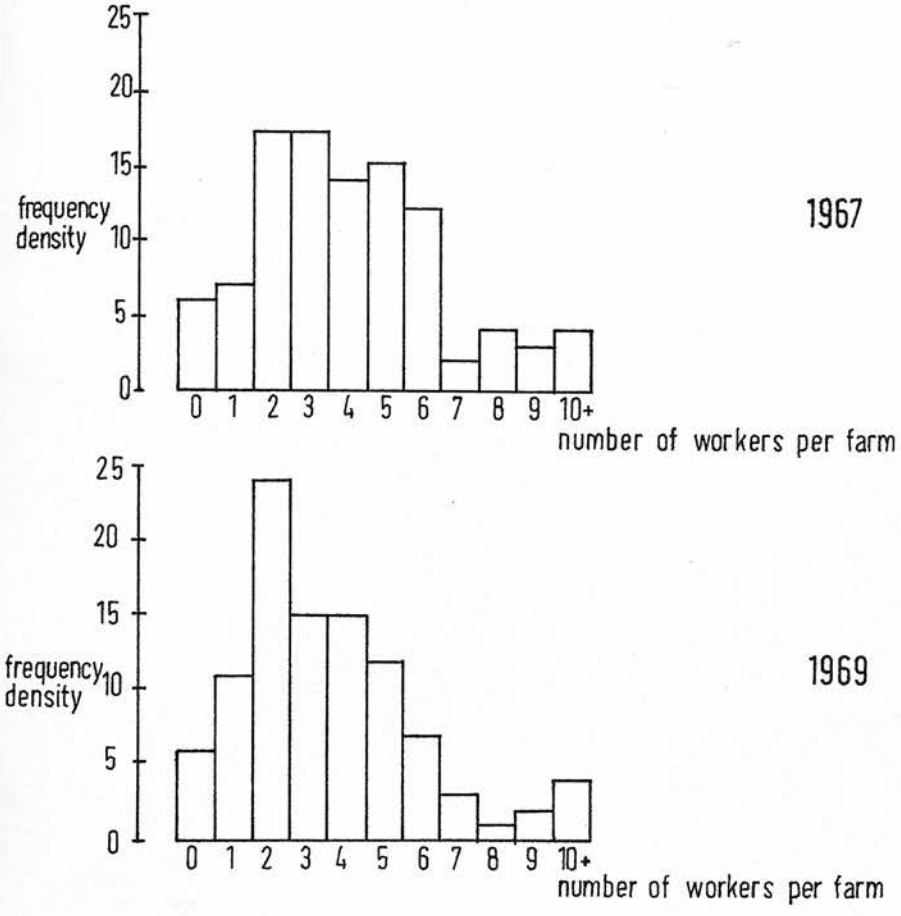
December 1969

December 1967 \ Size of Work Groups	0	1	2	3	4	5	6	7	8	9	10+	Total for 1967
0	6											6
1		6	1									7
2		4	12	1								17
3		1	8	8								17
4			3	3	8							14
5				3	4	6	2					15
6					3	5	3					11
7						1		1				2
8							1	1	1	1		4
9							1	1			1	3
10+										1	3	4
Total for 1969	6	11	24	15	15	12	7	3	1	2	4	

Note: Figures within the matrix represent frequency of farms having any given size of work force; example - in 1967 there were 17 farms employing 2 men. In 1969 only twelve of these units returned 2 men, one had increased to three men and four now only had 1 man.

1.13 A Net Flow of Hired Male Workers by Size of Labour Force 1967-1969

(Source: Mackel, opus cit. p. 116)



1.13.B Distribution of Full-Time Workers by Size of Labour Force

(Source: Mackel, op. cit., p. 117.)

1.14 Map of Farming Types in Scotland

Note: This map is to be found in a docket at the rear of the thesis.

(Source: Map supplied by and used with the kind permission of the Department of Agriculture and Fisheries for Scotland.)

appendix 2

appendix 2.1

CODE NO.	CARD NO.	INDUST ORDER NO.	AREA CODE

A. Job Experience

1. Present Job

I would first like to ask you a few questions about your present job.

1a. What is your job with (give the NAME of the employer)?

Record Fully .....

.....

.....

8-10

b. How many basic paid hours do you normally work each week?

20 hours	1	
20-29 hours	2	
30-39 hours	3	
40-44 hours	4	11
45-49 hours	5	
50-55 hours	6	
55 or more hours	7	

c. i. How many hours do you normally work on overtime rates each week?

2 hours	1	
2 hours but less than 4 hours	2	
4 " " " " 6 hours	3	12
6 " " " " 8 hours	4	
8 " " " " 10 hours	5	
10 or more hours	6	
Too variable/don't know	7	

ii. Does this vary with the season?

YES	1	13
NO	2	

d. Do you regard your job as -

Skilled supervisory	1	
Partly skilled	2	
Non-skilled	3	14
Too varied/don't know	4	

2. Please tell me how long you have been with your present employer.

less than 3 months	1	
3 months but less than 1 year	2	
1 year but less than 5 years	3	15
5 " " " " 10 years	4	
10 years or more	5	
Don't know	6	

	First Choice	Second Choice	
3a. This card shows some important things in any job. Which two do you consider the most important?			
Interesting and varied work	1	1	
High Wages	2	2	
Opportunities to do overtime	3	3	
Good working relationship with employer	4	4	
Modern equipment/good working conditions	5	5	16-17
Secure job and steady income	6	6	
Close to home and good hours	7	7	
Light job	8	8	
House provided	9	9	
Impossible to choose	X	X	

b. Are there any things which you particularly look for in a job which is not shown on this card?

Record Fully 18

.....

4. What made you choose your present job?

No special reason		1
Good pay		1
Hours of work		1
Near home		1
Friends/relations working there		1
Only job I could get		1
Training offered		1
Family reasons		1
Health		1
Responsibility		1
Chance of overtime		1
Other (specify		
.....)		

5. In your present job do you find:-

A. The pay is:	good	1	about average	2	31
	or poor	3	D.K.	4	
B. The hours are:	Too long	1	Too short	2	32
	About right	3	D.K.	4	
C. That the job is:	very secure	1	quite secure	2	33
	very insecure	3	D.K.	4	

D. That the chances of promotion are:

very good [1] fairly good [2]
not very good [3] D.K. [4]
Not wanted [5]

34

6. And in your present job do you find the work is:-

A. Physically hard [1] average [2] light [3] D.K. [4] 35

B. Dirty [1] average [2] clean [3] D.K. [4] 36

C. Noisy [1] average [2] quiet [3] D.K. [4] 37

D. Requires a great concentration [1] average concentration [2] little concentration [3]
D.K. [4] 38

E. Repetitious [1] average [2] varied [3] D.K. [4] 39

G. Skilled [1] average [2] unskilled [3] D.K. [4] 41

7. Taking everything into account would you say that you liked your job:

Very much	1
Quite a lot	2
Indifferent	3
Not very much	4
Not at all	5
Don't know	6

8. A. In the last 12 months, or since starting your present job if this is shorter, have you seriously tried to find another job?

Yes	1	43
No	2	

B If YES Why was this?

Code all that apply

Wanted better pay	1	44-50
Wanted lighter work	1	
Wanted better conditions	1	
Wanted job nearer home	1	
Present job insecure	1	
Wanted a change	1	
Other (specify ....)	1	

C If No Is there any particular reason why you have not tried to change jobs?

Code all that apply

No particular reason	1	51-56
Happy with the present job	1	
No chance of a better job	1	
Would need training	1	
Want to stay in the area	1	
Other (specify	1	
.....		

9a. What is the approximate value of your present take-home cash wage, including any normal overtime payments:

Less than £10	1	57
£10 to £12.49	2	
£12.50 to £14.99	3	
£15 to £17.49	4	
£17.50 to £19.99	5	
£20 to £24.99	6	
£25 to £29.99	7	
£30 and over	8	

b. If this is not your first job is this wage higher than your previous job?

YES	1	58
NO	2	
about same	3	

If YES ask:

When you first took this job was the average pay

up to £1 better than your last job?	1	59
£1 to £1.99 better than your last job?	2	
£2 to £2.99 better than your last job?	3	
£3 to £3.99 better than your last job?	4	
£4 to £4.99 better than your last job?	5	
More than £5 better than your last job?	6	

If NO ask:

When you first took this job was the average pay

£5 or more less than your last job?	1	60
£4 to £4.99 less than you last job?	2	
£3 to £3.99 less than your last job?	3	
£2 to £2.99 less than your last job?	4	
£1 to £1.99 less than your last job?	5	
Under £1 less than your last job?	6	

c. Do you also receive any of the following from your employer?

Electricity at a reduced rate or free	1	
Free coal, milk or other food	1	61
Pension on retiral	1	–66
Payments when sick	1	
Housing at a reduced rent or free	1	
Transport at a reduced rate or free	1	

A. Job Experience

II. Past Job(s)

I would appreciate it if you would now give me some information about your previous jobs if any.

10. How many jobs have you had - NOT INCLUDING your present and only including jobs in the U.K.

Have you had 4 or more previous jobs	1	
3 previous jobs	2	
2 previous jobs	3	67
1 previous job	4	
SKIP TO QUESTION 14 ← No previous job	5	

I would like to ask questions on the jobs you held most recently before your present job.

11 Firstly

(a) Taking the job immediately before your present one, what did you do?

JOB I _____ (68-70) Industry _____ (71-73)

(b) And the job before that, what was it?

JOB II _____ (74-76) Industry _____ (77-79) 4

2 CARD

NOTE (c) If all jobs listed in A-B were in agriculture ASK

Where you ever in a non-farming job before these last two jobs? YES 1 / NO 2 — 5

If YES, RECORD:

Occupation 6-8

Industry 9-11

(d) Was your first job on leaving school in agriculture?

YES 1 / NO 2 — 12

		Job I	Job II	
12.	NOTE. Take one job at a time, starting with the most recent job (Job I) and ask questions (a), and (c) to (g) for each worker Ask question (b) only of those who indicate agricultural employment.			
a.	How would you describe the job? (wait for spontaneous response if not forthcoming show card II).	(13)	(23)	
	Self employed	1	1	
	Professional/Managerial	2	2	
	Clerical	3	3	
	Ask b ← Working in agriculture	4	4	
	Supervisory and skilled MANUAL	5	5	
	Partly and non-skilled MANUAL	6	6	
	Too varied/don't know	7	7	
b.	IF WORKING IN AGRICULTURE	(14)	(24)	
	Were you a Farmer	1	1	
	Grieve/Foreman	2	2	
	Stockman	3	3	
	Shepherd	4	4	
	Tractorman/horseman	5	5	
	General Worker	6	6	
	Other (specify ....)	7	7	
c.	When you first took the job, was the job.	(15)	(25)	
	Ask d. ← Better paid than your last job	1	1	
	Ask e. ← Worse paid than your last job	2	2	
	About the same pay as your last job	3	3	
	Don't know/can't remember	4	4	
d.	When you first took this new job was the average pay	(16)	(26)	
	up to £1 better than your last job?	1	1	
	£1 to £1.99 better than your last job?	2	2	
	£2 to £2.99 better than your last job?	3	3	
	£3 to £3.99 better than your last job?	4	4	
	£4 to £4.99 better than your last job?	5	5	
	More than £5 better than your last job?	6	6	

		Job I	Job II	
e.	When you first took this new job was the average pay	(17)	(27)	
	£5 or more less than your last job?	1	1	
	£4 to £4.99 less than your last job?	2	2	
	£3 to £3.99 less than your last job?	3	3	
	£2 to £2.99 less than your last job?	4	4	
	£1 to £1.99 less than your last job?	5	5	
	Under £1 less than your last job?	6	6	
f.	Did you work	(18)	(28)	
	More than 21 hours	1	1	
	Less than 21 hours	2	2	
	Don't know/can't remember	3	3	
g.	When did you take that job?	(19)	(29)	
	Less than two years ago	1	1	
	2 years but less than 5 years ago	2	2	
	5 years ago but less than 10 years	3	3	
	10 years ago but less than 20 years	4	4	
	20 years or more ago	5	5	
	Don't know/can't remember	6	6	
h.	Why did you leave that job?	(20)	(30)	
	Was made redundant	1	1	
	Was dismissed	2	2	
	Wanted a lighter job	3	3	
	Wanted a better paid job	4	4	
	Family reasons	5	5	
	Didn't get on with employer	6	6	
	Was promoted	7	7	
	Didn't like it	8	8	
	Or did you leave for some other important reason not LISTED HERE?			
	Specify	9	9	
	.....			
	.....			

	Job I	Job II	
j. When you left your job did you	(21)	(31)	
Have a new job already fixed up	1	1	
Start looking for a new job straightaway	2	2	
Stop work temporarily	3	3	
k If unemployed for a time were you unemployed for	(22)	(32)	
Less than 2 weeks	1	1	
2 to 4 weeks	2	2	
4 to 8 weeks	3	3	
8 to 26 weeks	4	4	
Ask question 13 — 26 weeks to a year	5	5	
Longer than a year	6	6	
Don't know/can't remember	7	7	
13. If you were ever out of employment for more than four weeks was this because	(33)	(34)	
You were not able to find a job	1	1	
Health reasons	1	1	
Looking after another member of the family who was sick	1	1	
Other (specify ....)	1	1	
B. Journey to Work			
Now some questions on how you travel to work.			
14. Approximately how long does it take you to get to work from where you live?			
Less than 15 minutes		1	
15-29 minutes		2	
30-59 minutes		3	35
1 hour or more		4	
Varies/work not in the same place		5	
Don't know		6	
15a. How do you normally travel to work?			
Ask (b) — Own transport		1	
Given a lift		2	
Public transport		3	
Ask (c) — Company transport		4	36
Walk only		5	

b. If using own transport ask type of transport used.

Car	1	37
Motor Cycle/Motor Cycle combination	2	
Moped/Scooter	3	
Bicycle	4	

c. Do you nevertheless own a car?

YES	1	38
NO	2	

C. Geographical Mobility

16a. Have you ever moved house because of a change of job? (Yours or anyone else in your family?)

YES	1	39
To question 17 ← NO	2	

IF YES

b. When was your last move because of a job?

Less than 3 months ago	1	40
3 months but less than 1 year ago	2	
1 year but less than 5 years ago	3	
5 years but less than 10 years ago	4	
10 years or more ago	5	
Don't know	6	

c. Where did you move (i) from ..... | 41-44

(ii) to .....

d. What is the distance between c.(i) and c.(ii)

Up to 10 miles	1	45
11 to 30 miles	2	
Running prompt 31 to 100 miles	3	
Over 100 miles	4	

17a. If you had the chance of a better paid job in another area, what would be your reaction?

Would definitely move	1	46
ask (b) ← Would consider moving	2	
ask (c) ← Would not move	3	

b. If you would consider moving what things would you think about before making a decision

	Mentioned Spontaneously (47-53)	First Choice (54)	Second Choice (55)
Security of Job	9	1	1
Good Schools	9	2	2
Moving away from friends/family	9	3	3
Housing	9	4	4
Shopping centres/facilities/social amenities	9	5	5
Public transport in the area	9	6	6
		7	7
Hours/Pay	9	8	8

NOTE Ring code of all factors mentioned spontaneously - BEFORE PROMPTING. If expression "good job" is used probe to find what respondent means by this. When respondent can think if nothing else show Card III and ask respondent to indicate TWO CHOICES.

c. Is there anything else which would help you decide to move

(Specify .....
.....)

56

18a. If you were to lose your present job through redundancy do you think that it would be reasonably easy to get a suitable job in the area where you live?

	YES	1
ask (b) ←	NO	2
	D.K.	3

57

b. If No or D.K. and you could not find a suitable job would you?

ask (c) ←	Take a less suitable job	1
	Would consider moving	2
	Stop work altogether	3

58

c. Why would you do that, rather than move?

(Specify .....
.....)

59

ASK NON-FARM WORKERS

d. Would you return to agriculture?

YES	1	60
NO	2	

D. Trade Unions

I am also interested in your experience of trade unions.

19a. Are you a member of a trade union?

ask (b)	YES	1	61
skip to question 20	NO	2	

IF YES

b. Which Union? 62

c. Is there a shop steward or other union representative to whom you can go with a problem?

YES	1	
NO	2	63
D.K.	3	

to question 20c

20a. Why have you not joined a union since joining your present job?

Do not want to/refused	1	
Willing to but never been asked	2	
No such organisation at work	3	
Employer would not like it	4	64
Membership fee too much	5	
Other (specify	6	
.....)		
Don't know	7	

b. Have you ever belonged to a Trade Union?

YES	1	65
NO	2	

c. At your work, do any of the people doing your sort of job belong to a trade union?

YES	1	
NO	2	66
D.K.	3	

d. If YES, which union is this? 67

IF NOT NOW IN AGRICULTURE ASK:-

21a. Were you in a union whilst in Agriculture?

	YES	1	68
skip question 22	NO	2	

b. If YES which Union? (Specify .....) 69

c. Did you go to Union meetings?

YES	1	70
NO	2	

d. For what period of your time in agriculture were you in a union?

All the time	1	71
Some of the time	2	

e. How long was this in terms of years? 72-73

E. Information

22. Going back to your present job. How did your first hear about this job

Ring one code only

Advertisement	1	74
Employment Exchange	2	
Youth Employment Exchange	3	
Private Employment Exchange	4	
Through relatives or friends	5	
Direct application to employer	6	
Direct approach by employer	7	
Trade Union	8	
Other (specify ....)	9	

23. If you wished to change your job again would you?

Advertise	1	75-80
Go to an agency	1	
Go to an Employment Exchange	1	
Look at the paper	1	
Contact/friends/relatives	1	
Other (specify ....)	1	
		4
	3	CARD

F. Housing

I would now like to ask you a few questions about where you live?

24a. Do you live in lodgings?	skip to question 27	YES	1	5
	ask (b)	NO	2	

b. Do you own, are you buying or are you renting your accommodation?

Fully own	1	
Buying on mortgage	2	
ask (c) → Renting from employer	3	
ask (d) → Renting furnished, privately	4	
Renting unfurnished, privately	5	6
Renting from local authority	6	
Rent free (specify .....)	7	
Other (specify .....)	8	

c. If rent free or renting from employer is the tenancy tied to the job?

YES	1	7
NO	2	

d. Does the fact that you would lose your house mean that you are less willing to move to try and find another job?

YES	1	8
NO	2	

FOR THE WORKER NOW IN NON-FARM JOB ASK:-

25. a. Was one of your reasons for leaving agriculture to obtain more adequate housing?

YES	1	9
NO → To question 26	2	

b. If YES which of these factors did you consider most important

Three or more bedrooms	1	
Bathroom	2	10
Housing not tied to job	3	
Other (specify .....)	4	

26. a. Does your house have

(i) Bathroom	1	11
(ii) Less than 3 bedrooms	1	12
(iii) 3 or more bedrooms	2	

b. What is the total number of rooms? (Excluding bathroom/W.C.) 13

G. Household Composition

Finally, just a few questions about you generally.

27. a. What is your maritial status?

To question 31 ← Single — 1

Married — 2

To question 30 ← Widowed/Separated/Divorced — 3

14

b. Was your wife born in a rural area?

YES — 1

NO — 2

15

28. How many people are there in your household (including you)? [ ][ ] 16-17

29. a. Does your wife have a regular paid job

YES — 1

To question 30 ← NO — 2

18

b. What is her job? 19-21

Industry 22-24

c. Does she work

More than 21 hours in a normal week — 1

Less than 21 hours in a normal week — 2

25

d. What is her approximate take home pay?

Less than £5 — 1

£5 to £7.99 — 2

£8 to £10.99 — 3

£11 to £13.99 — 4

£14 to £16.99 — 5

More than £17 — 6

26

30. a. Do you have any sons (either living at home or away from home)?

YES — 1

To question 31 ← NO — 2

27

b. How many sons do you have? [ ][ ] 28

c. Of these sons how many are regularly working full-time? [ ][ ] 29

d. Please give the occupation and industry of two eldest sons if working full-time.

	Eldest Son (1)	2nd Son
Occupation	(30-32)	(36-38)
Industry	(33-35)	(39-41)

H. Personal Background

31. a. Where were you born?

Fife (where .....)		42-45
Scotland (county .....)		
Elsewhere in U.K. (county .....)		
Eire		
Other (specify ....)		

b. How old are you?

15-17	1	46
18-20	2	
21-29	3	
30-39	4	
40-49	5	
50-59	6	
60-64	7	
65+	8	

If born outside the United Kingdom ask

c. How long have you lived in the United Kingdom?

Less than 5 years	1
5 years but less than 12 years	2
12 years or over	3
Don't know	4

32. How old were you when you left school?

Age		
14	1	48
14-15	2	
15-16	3	
17	4	
18	5	

33. What type of school was the last one you attended?

(Note: This list may not be exhaustive and confusion may exist between English and Scottish systems)

Village School	1	49
Junior Secondary	2	
Senior Secondary	3	
Secondary Modern	4	
Comprehensive	5	
Grammar	6	
Private/fee-paying	7	
Direct Grant	8	
Sixth-form College	9	
Other (specify ....)	10	

403

34. a.	At these schools did you gain any kind of certificates?		
	Ask (b) ← YES	1	50
	Skip to 35 ← NO	2	
b.	If YES please describe these:		
	Leaving Certificate Lower Grade	1	
	Leaving Certificate Higher Grade	2	
	'O' Levels	3	51
	'A' Levels	4	
	Other (specify .....)	5	
35. a.	Have you had any formal or informal job training with either your present or previous employer?		
	Ask (b) ← YES	1	52
	[See note to question 37] NO	2	
	to question 36		
	IF YES		
b.	What is the longest period of training you have had for any job?		
	Two weeks or less	1	
	2 to 4 weeks	2	53
	4 weeks to 3 months	3	
	More than 3 months	4	
	Don't know/can't remember	5	
36. a.	Since leaving school have you attended any <u>work related</u> training courses away from your place of work?		
	Ask (b) ← YES	1	54
	[See note to question 37] ← NO	2	
b.	If YES please describe these courses		
	Night Classes	1	
	Day Release Classes	2	
	Full-time study for less than 1 year	3	
	Full-time study for less than 1 year but less than 3 years	4	55
	Full-time study for more than 3 years	5	

c. Qualification gained (or hope to gain)?

Certificate in ( )	1	56
Diploma in ( )	2	
Degree in ( )	3	
None	4	

37. a. If the interviewer has said "yes" to either of questions [illegible], 35(a) and 36(a) ask - Were any of the qualifications you hold demanded as a condition of obtaining your present job?

Ask (c) ← YES	1	57
Ask (b) ← NO	2	

b. If NO why did you take a job where your skills were not used?

Describe fully .....

..... 58

c. (i) Have you ever had a full-time job where you have not used your qualifications/training?

YES	1	59
NO	2	

(ii) Why did you take this job?

Describe fully .....

..... 60

38. I would now like to ask you a few questions about your general state of health.

a. For your age, would you say your health is

Read out

Good	1	61
Fair	2	
Poor	3	

b. Have you in the past usually enjoyed good health?

YES	1	62
NO	2	

39. a. Does your health in anyway affect your ability to work?

Ask (b) to (d) ← YES	1	63
Skip to (e) ← NO	2	

405

b. If YES

Do you have any difficulty doing your work because of this?

All the time	1	64
Sometimes	2	
Never	3	

c. Does it prevent you going to work?

Often	1	65
Occasionally	2	
Never	3	

d. Do you think that it prevents you getting a better paid job?

YES	1	66
NO	2	
Don't know	3	

FOR NON-FARM WORKERS

e. Did you leave agriculture because of your health?

YES	1	67
NO	2	

40. a. In what job did your father spend the greater part of his working life?

Describe fully .....

..... 68-70

b. In which industry was this _____ Industry 71-73

If non-agricultural ask:-

c. What position did he hold?

Self-employed	1	74
Professional or managerial	2	
Clerical	3	
Supervisory or skilled	4	
Partly or unskilled	5	
Too varied/don't know	6	

d. If employed in agriculture was he a -

Farmer	1	75
Farm Manager	2	
Grieve	3	
Stockman	4	
Shepherd	5	
Horseman/tractorman	6	
General worker	7	
Other (specify	8	
.....)		

Date completed .....

APPENDIX 2.2.A.	Code number	Area code
Office use only		(1-6)

Please give the following details:

1. The number of male employees involved in running the farm. (Note: Include all regular full and part-time workers but no seasonal and casual workers.)		(7-9)
2. Please give the job of these workers listed in question one above		
Manager		(10)
Grieve		(11)
Stockman		(12)
Dairyman		(13)
Shepherd		(14)
Tractorman		(15-16)
General worker		(17-18)
Other (Specify.....)		
3. How many workers have left your employment in the last twelve months?		(20-21)
4. How many employees have you taken on in the last twelve months?		(22-23)
5. Would you permit a research worker to ask a sample of your workers if they were willing to be interviewed?		
YES	1	(24)
NO	2	
6. Please indicate whether you have enclosed a list of the names of your employees		
I have enclosed a list	1	(25)
I have not enclosed a list	2	
Date for which these figures apply		

THANK YOU FOR YOUR CO-OPERATION

APPENDIX 2.2.B.

Dear Sir,

We are currently conducting research into the past and present movement of male agricultural workers in Fife, and we are particularly interested in the movement of workers between industry and farming. At present our knowledge of the job experience of workers making such a move is limited, and we want to build up detailed information on such factors as reasons for moving, types of job gained, use made of information services and retraining schemes, and resultant changes in living standards.

For this reason, we need to contact a sample of agricultural workers in Fife, and we are writing to ask for your co-operation in this matter.

For statistical reasons it would be very helpful if you would send us details of the number of male workers you employ, their job and their names. This will enable us to select names at random for personal interviews. No worker will be approached with a questionnaire unless he has first indicated his willingness to take part.

It is hoped that interviews with workers will take place in late May and early June. A short questionnaire and stamped addressed envelope are enclosed, and we would be most grateful if you could return it to us at your earliest convenience.

All information received will be treated in the strictest confidence.

Yours faithfully,

APPENDIX 2.3.A.

	Area code	Code number	Industrial order group	
Office use only				(1-7)

Please give the following details:

1. The number of all male employees:

Production		(8-12)
Clerical		(13-15)

2. How many of these male workers had their last job in agriculture?

		(16-19)
None	1	
Don't Know	2	(20)

3. Not including the employees counted under question two, how many of them have had agricultural employment at some time in the past?

		(21-24)
None	1	
Don't Know	2	(25)

4. If you have no record of the previous employment of your workers would you be prepared to place a notice on the firm's notice board asking for the names of ex-agricultural workers prepared to take part in the survey?

YES	1	
NO	2	(26)

5. How do you recruit non-office staff?

(PLEASE RING ALL CODES THAT APPLY)

Advertise in the local/

Advertise in the local newspapers?	1	(27)
Through a Department of Employment Exchange?	2	(28)
Through a private Employment Agency?	3	(29)
Through your own personal contacts?	4	(30)
Through your employees' personal contacts?	5	(31)
By advertising on notice boards outside the premises?	6	(32)
Other (Specify.....)	7	(33)

6. Have any of your employees been trained/retrained in the following ways in the last five years? (PLEASE RING ALL CODES THAT APPLY)		
Day release classes	1	(34)
Industrial Training Boards	2	(35)
Your own schemes (Specify..... .....)	3	(36)
Other (Specify..... .....)	4	(37)
No training/retraining offered	5	(38)

7. Would you permit a research worker to ask a sample of your workers if they were willing to be interviewed about their job-experience in agriculture?		
YES	1	(39)
NO	2	

8./

8.	Please indicate whether you have enclosed a list of names of your ex-agricultural employees. I have enclosed a list I have not enclosed a list	 1 2	 (40)
9.	Please give the name and position of the person filling in this form. Name..... Position..... Date for which these figures apply.....		

THANK YOU FOR YOUR CO-OPERATION

APPENDIX 2.3.B.

Dear Sir,

We are currently conducting research into the past and present movement of male agricultural workers in Fife, and are particularly interested in the movement of agricultural workers from farming into other occupations. At present our knowledge of the job experience of workers making such a move is limited, and we want to build up detailed information on such factors as reasons for moving, types of job gained, use made of information services and retraining schemes, and resultant changes in living standards.

For this reason we need to contact a sample of ex-agricultural workers in Fife, and we are writing to ask for your co-operation in this matter.

For statistical reasons it would be very helpful if you would send us details of the number of former agricultural workers you employ and their names. This will enable us to select names at random for personal interviews about their agricultural experiences. No worker will be approached with a questionnaire unless he has first indicated his willingness to take part.

It is hoped that interviews with workers will take place in May and June. A short questionnaire and stamped addressed envelope are enclosed, and we would be most grateful if you could return it to us at your earliest convenience. If we can be of any further assistance in publicising the survey amongst your workers or helping with the information required, please let us know. We would be glad to answer any queries you might have.

All information received will be treated in the strictest confidence.

Yours faithfully,

APPENDIX 2.4

Dear Sir,

Labour Survey

I refer to a questionnaire which we recently sent to you asking for your co-operation in the labour survey which we are at present conducting. It is possible that you may have forgotten or mislaid the original forms or may have decided not to make a return.

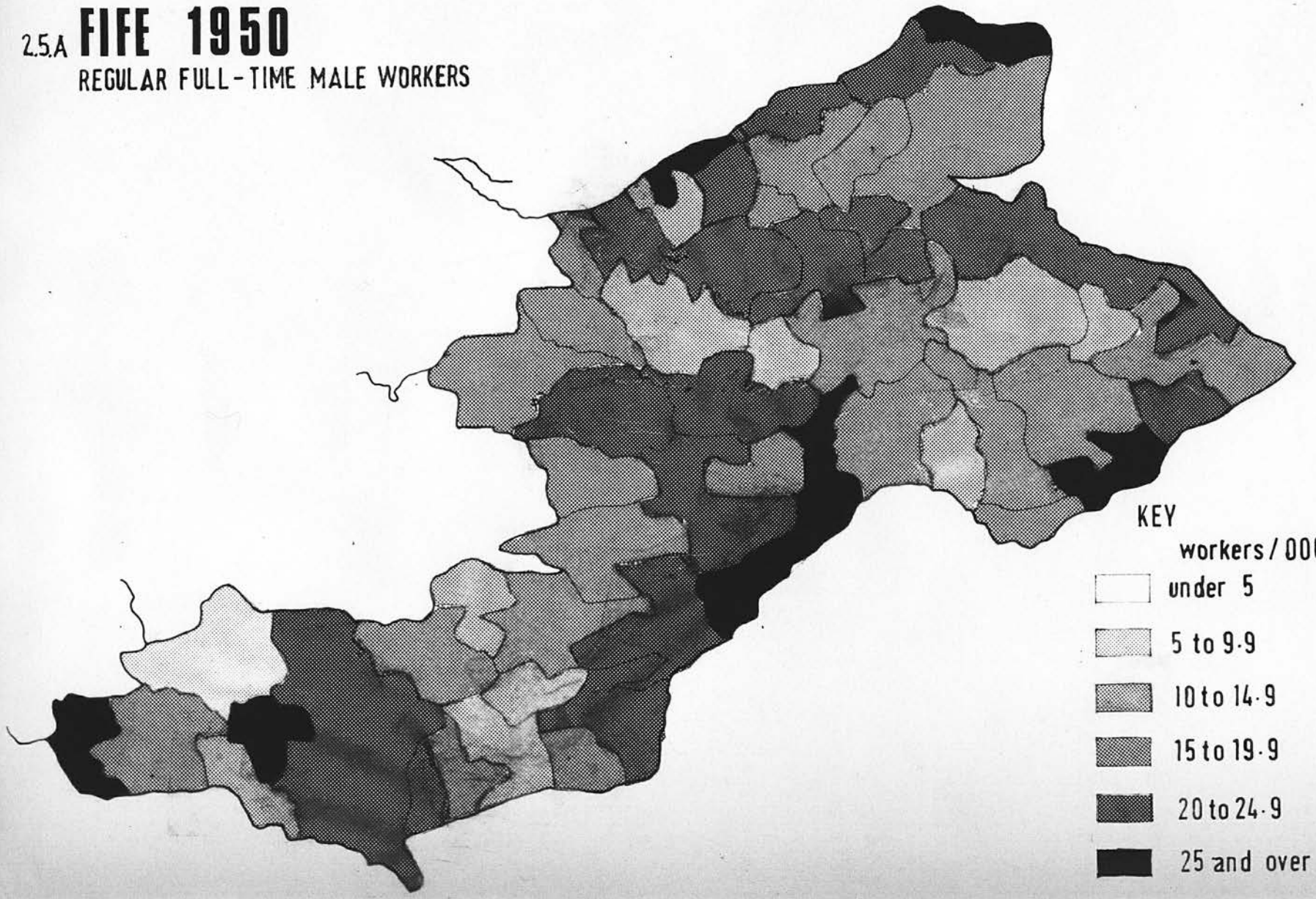
We are naturally anxious to have as many returns as possible and I write to ask you if could could fill in the appropriate form and return it to us whether or not you actually employ any workers.

I hope that you do not take exception to us writing to you again on this matter and would be most grateful if you could reply at your earliest convenience.

Yours faithfully,

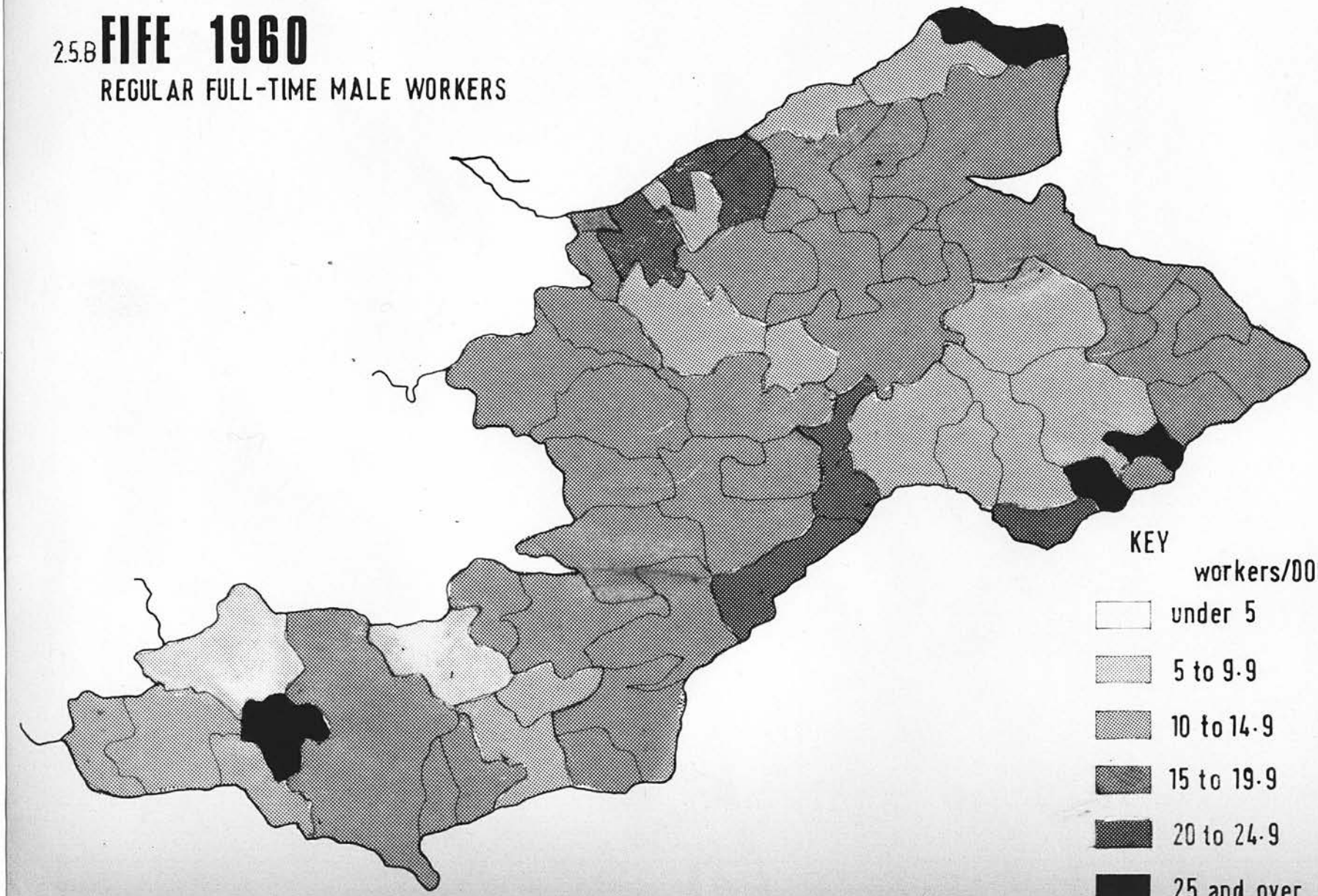
2.5.A **FIFE 1950**

REGULAR FULL-TIME MALE WORKERS



2.5.B **FIFE 1960**

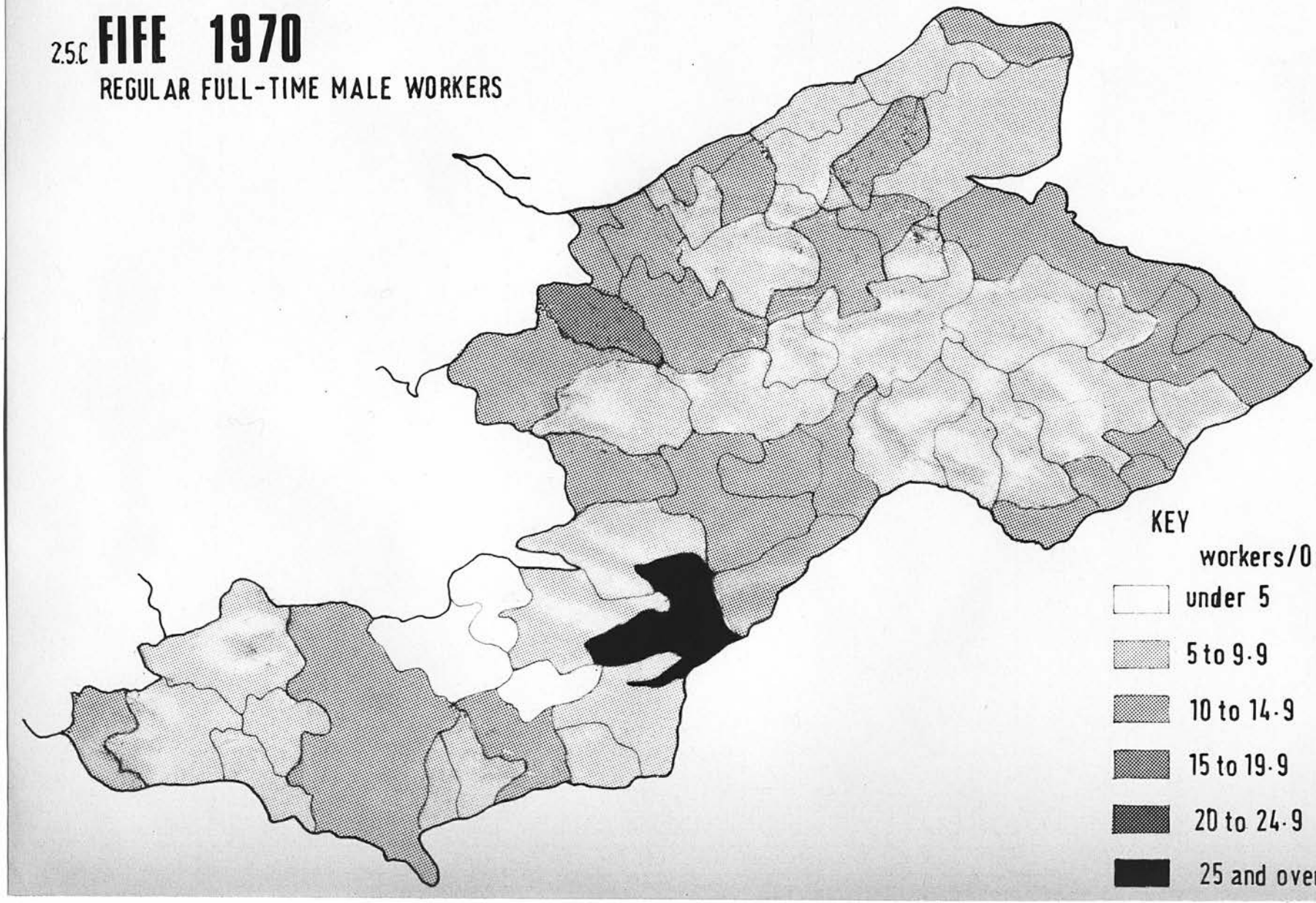
REGULAR FULL-TIME MALE WORKERS



2.5.C

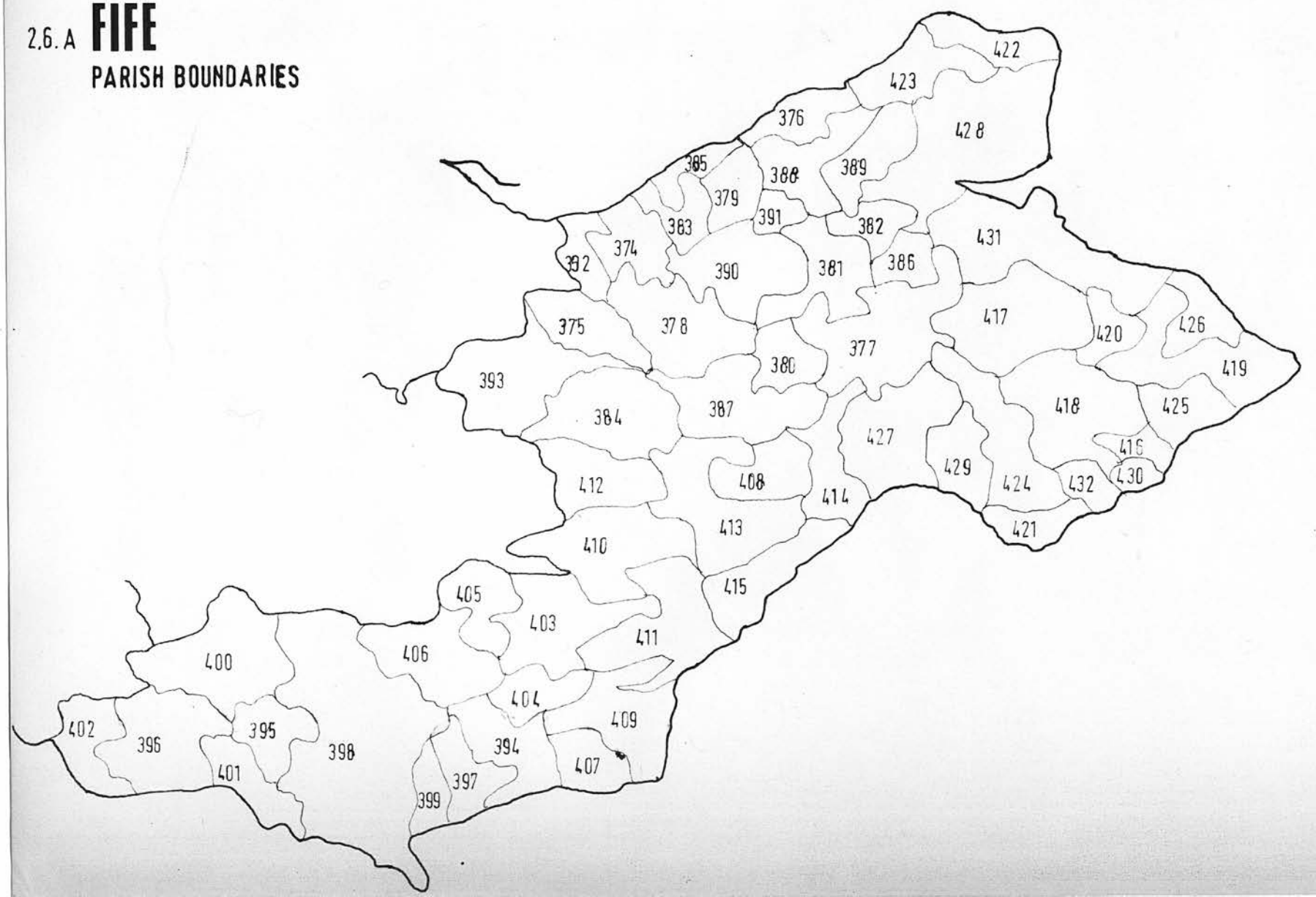
FIFE 1970

REGULAR FULL-TIME MALE WORKERS



2.6. A **FIFE**

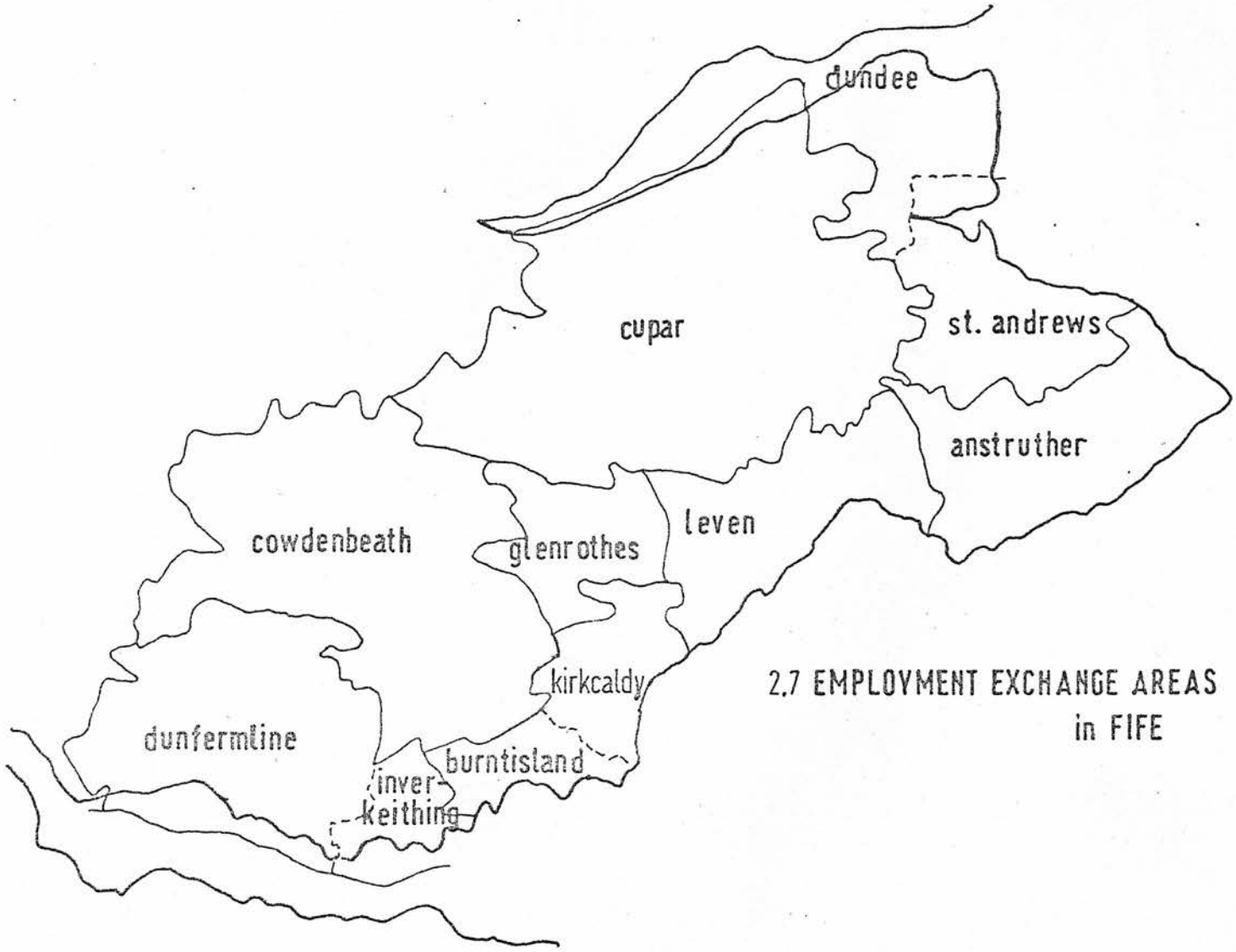
PARISH BOUNDARIES



APPENDIX 2.6.B: KEY TO PARISH NUMBERS IN FIFE

Parish Code	Parish Name	Number of Farms in each Parish Returning Questionnaires	Number of Farms from which Workers were Selected for Interview
374	Abdie	3	(1)
375	Auchtermuchty	3	
376	Balmerino	2	(2)
377	Ceres	8	(5)
378	Collessie	5	(1)
379	Creich	2	(1)
380	Cults	2	
381	Cupar	6	(3)
382	Dairsie	2	(1)
383	Dunbog	2	(1)
384	Falkland	5	(1)
385	Flisk	3	(1)
386	Kemback	1	(1)
387	Kettle	5	(2)
388	Kilmany	5	(2)
389	Logie	4	(2)
390	Monimail	6	(3)
391	Moonzie	2	(1)
392	Newburgh		
393	Strathmiglo	6	
394	Aberdour	5	(1)
395	Carnock	2	(2)
396	Culross	4	(1)
397	Dalgety	3	(1)
398	Dunfermline	10	(2)
399	Inverkeithing	1	(1)
400	Saline	8	
401	Torryburn	2	
402	Tulliallan	3	(1)
403	Auchterderran	6	(1)
404	Auchtertool	1	
405	Ballingry	3	(1)
406	Beath	3	(1)
407	Burntisland	1	
408	Kennoway	5	(4)
409	Kinghorn	6	(1)
410	Kinglassie	3	
411	Kirkcaldy and Dysart	4	(1)
412	Leslie	4	(2)
413	Markinch	6	(1)
414	Scoonie		
415	Wemyss		
416	Anstruther Wester	1	(1)

Parish Code	Parish Name	Number of Farms in each Parish Returning Questionnaires	Number of Farms from which Workers were Selected for Interview
417	Cameron	3	(1)
418	Carnbee	12	(4)
419	Crail	5	(1)
420	Dunino	1	(1)
421	Elie	1	
422	Ferry Port on Craig	2	(1)
423	Forgan	2	
424	Kilconquhar	5	(1)
425	Kilrenny	7	(2)
426	Kingsbarns	3	(2)
427	Largo	6	(1)
428	Leuchars	4	(1)
429	Newburn	1	
430	Pittenweem		
431	St. Andrews and St. Leonards	1	(1)
432	St. Monans	2	(1)



2.7 EMPLOYMENT EXCHANGE AREAS
in FIFE

appendix 3

APPENDIX 3.1: NET CHANGES OF EX-AGRICULTURAL WORKERS WHO WERE GEOGRAPHICALLY MOBILE

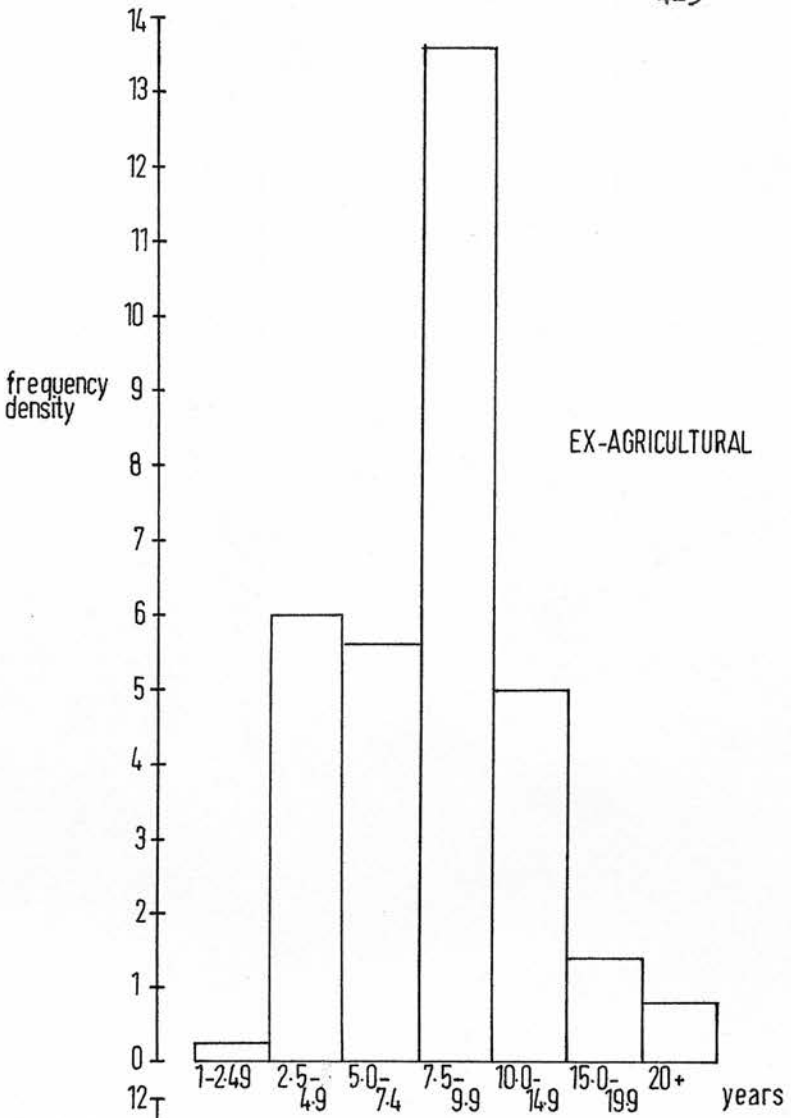
Place Name	Number Moving From	Number Moving To	Net Change
Aberdour	1	-	-1
Anstruther	1	2	+1
Auchtermuchty	1	1	0
Balbirnie	2	-	-2
Boarhills	3	-	-3
Burntisland	1	-	-1
Cardenden	1	-	-1
Colinsburgh	1	-	-1
Cowdenbeath	1	-	-1
Crail	1	-	-1
Cupar	4	15	+11
Dairsie	-	1	+1
Dunfermline	1	2	+1
Dunino	3	-	-3
East Wemyss	1	-	-1
Falkland	2	-	-2
Frenchie	-	1	+1
Glenrothes	-	4	+4
Guard Bridge	1	2	+1
Kelty	-	1	+1
Kennoway	3	2	-1
Kincardine	1	1	0
Kingsbarns	2	2	0
Kingskettle	1	-	-1
Kirkcaldy	2	5	+3
Ladybank	-	1	+1
Largo	1	1	0
Largoward	1	-	-1
Leslie	-	1	+1
Letham	1	-	-1
Leven	1	5	+4
Leuchars	2	2	0
Milton Newburgh)	1	-	-1
Newport)	1	-	-1
St. Andrews	3	10	+7
Strathkinnes	1	-	-1
Tayport	1	-	-1
Windygates	1	-	-1
Wormit	1	-	-1
Perth	2	-	-2
Clackmannan	1	1	0
Kinross	3	1	-2
East Lothian	1	-	-1
Renfrew	1	-	-1
Berwick	2	-	-2
Dumfries	1	-	-1
Kirkcudbright	1	-	-1
Eire	1	-	-1

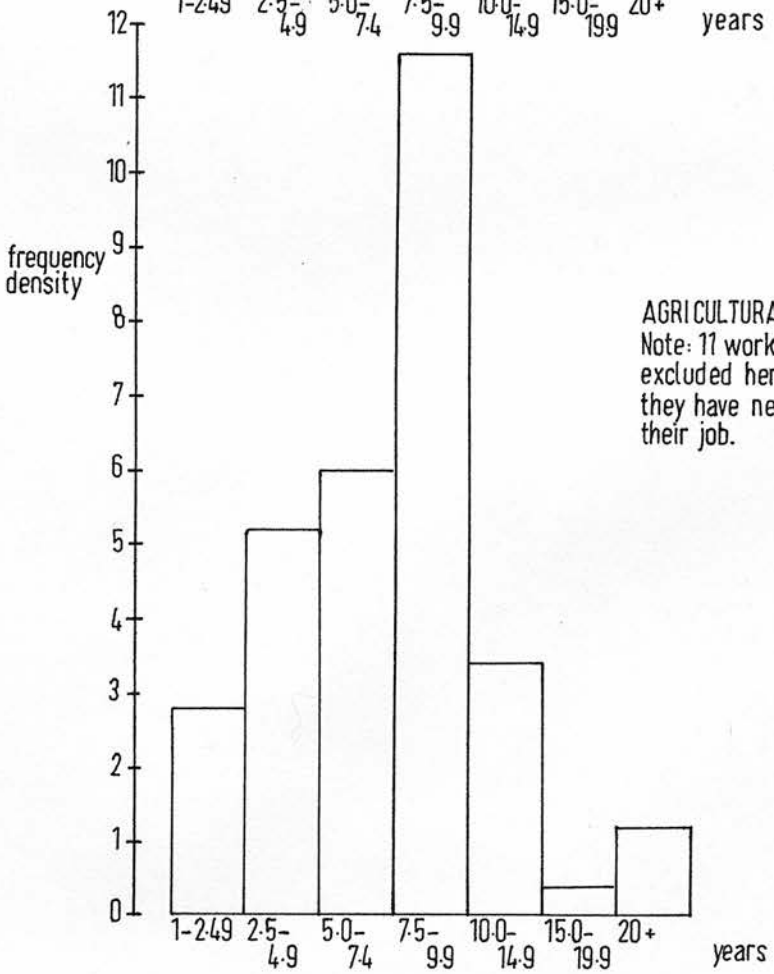
APPENDIX 3.2: NET CHANGES OF AGRICULTURAL WORKERS WHO WERE GEOGRAPHICALLY MOBILE

Place Name	Number Moving From	Number Moving To	Net Change
Anstruther	-	1	+1
Auchtermuchty	-	1	+1
Balbirnie	-	1	+1
Balmullo	1	2	+1
Boarhills	1	-	-1
Burntisland	1	1	0
Cardenden	1	-	-1
Carnbee	-	4	+4
Ceres	3	1	-2
Coaltown	1	-	-1
Crail	1	-	-1
Cults	-	2	+2
Culross	1	-	-1
Cupar	4	7	+3
Dairsie	1	3	+2
Dunbog	-	1	+1
Dunfermline	1	5	+4
Dunino	2	3	-1
Elie	2	-	-2
Falkland	2	2	0
Frenchie	-	4	+4
Gilston	1	-	-1
Glenrothes	1	-	-1
Kelty	-	1	+1
Kennoway	1	2	+1
Kilconqhar	-	1	+1
Kilmany	-	1	+1
Kincardine	-	1	+1
Kinghorn	2	-	-2
Kingsbarns	1	2	+1
Kingskettle	-	1	+1
Kirkcaldy	4	2	-2
Ladybank	1	-	-1
Largo	1	2	+1
Largoward	1	-	-1
Leslie	-	2	+2
Leven	2	-	-2
Leuchars	1	-	-1
	-	1	+1
Lochgelly	-	1	+1
Logie	-	1	+1
Luthrie	-	3	+3
Milton	-	1	+1
Moonzie	1	1	0
Newburgh	2	-	-2
Pitscottie	1	1	0
Pittenweem	1	2	+1
Rathillet	1	-	-1

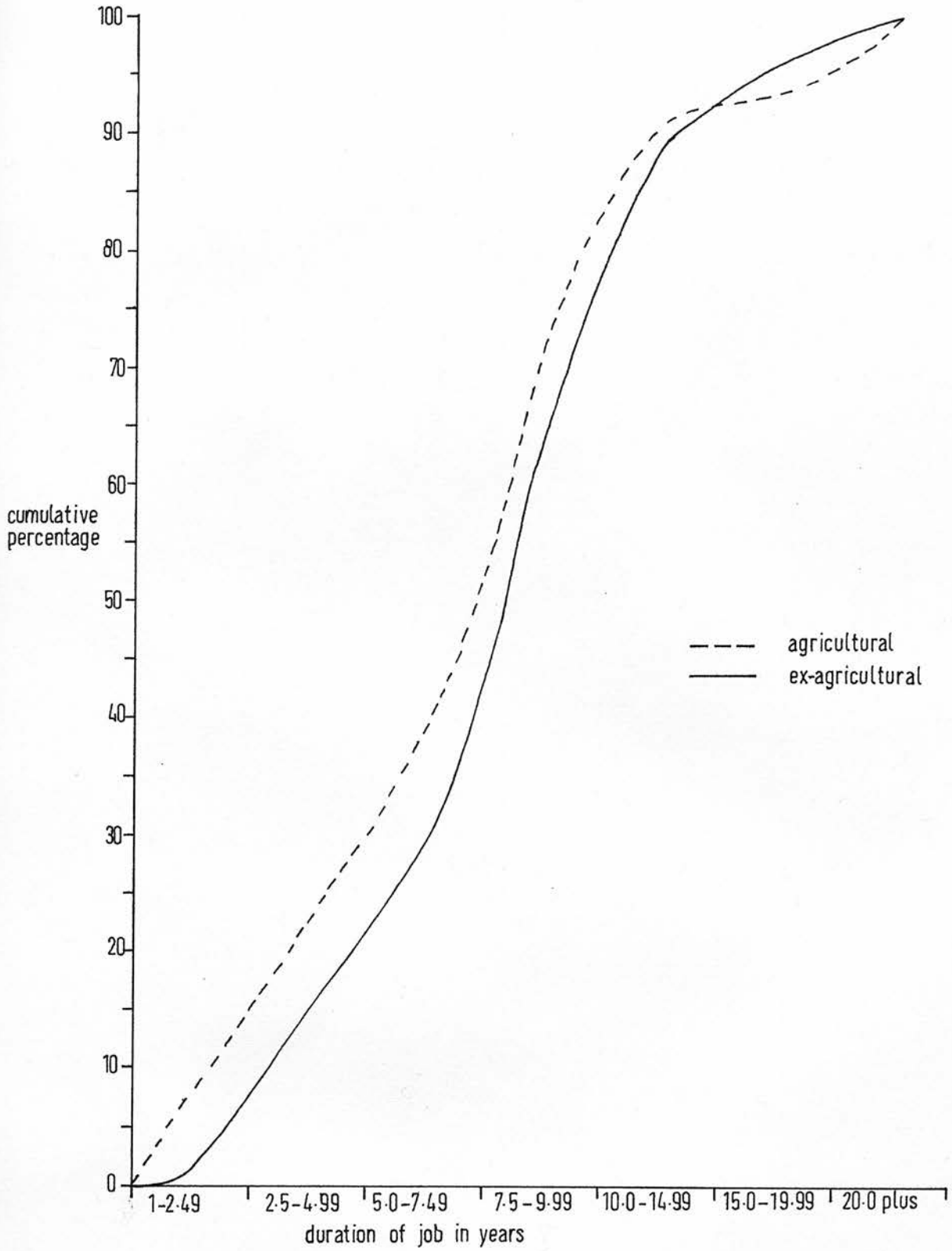
Place Name	Number Moving From	Number Moving To	Net Change
St. Andrews	2	3	+1
St. Monance	-	1	+1
Springfield	-	4	+4
Tayport	-	1	+1
Thornton	3	1	-2
Windygates	1	-	-1
Wormit	1	3	+2
Moray	1	-	-1
Kincardineshire	1	-	-1
Angus	7	-	-7
Perth	8	-	-8
Clackmannan	-	1	+1
Kinross	2	-	-2
West Lothian	1	-	-1
Renfrew	1	-	-1
Lanark	1	-	-1
Peebles	1	-	-1
Caernarven	1	-	-1
Northumberland	1	-	-1
Australia	1	-	-1
Falkland Islands	1	-	-1

appendix 4

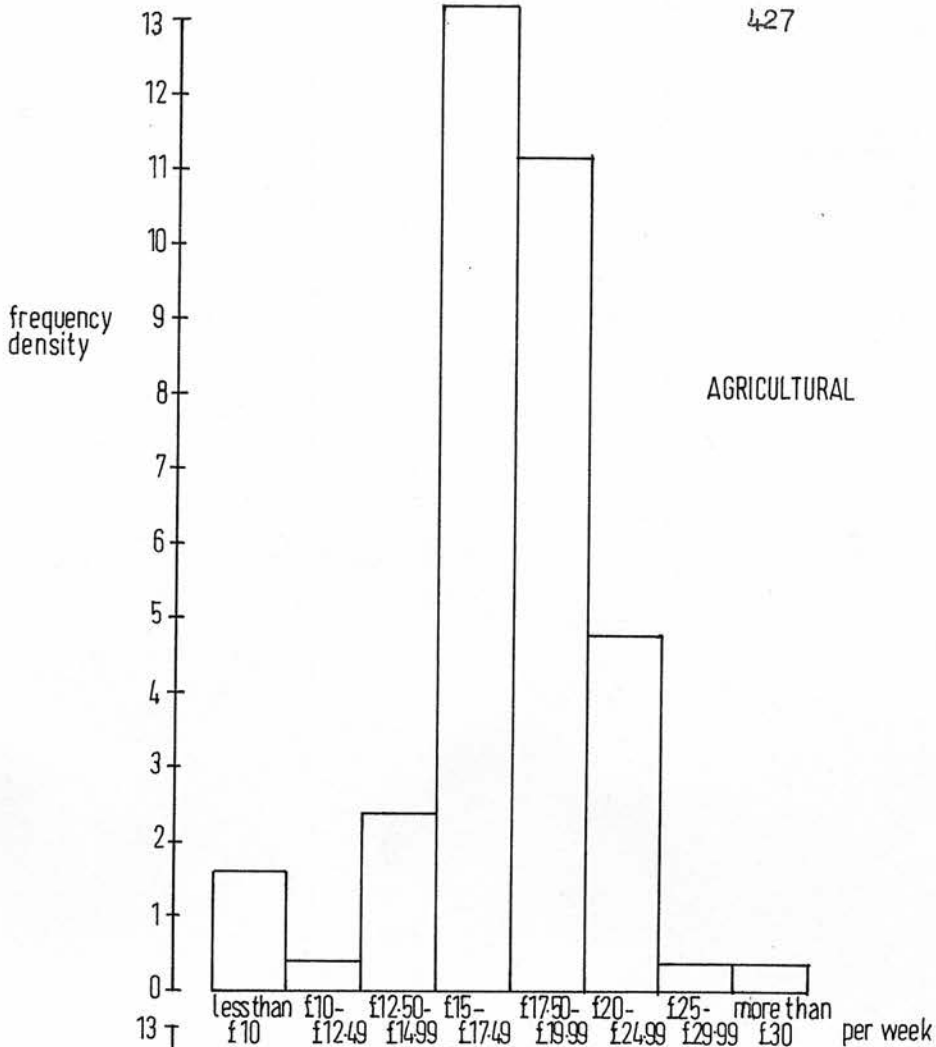


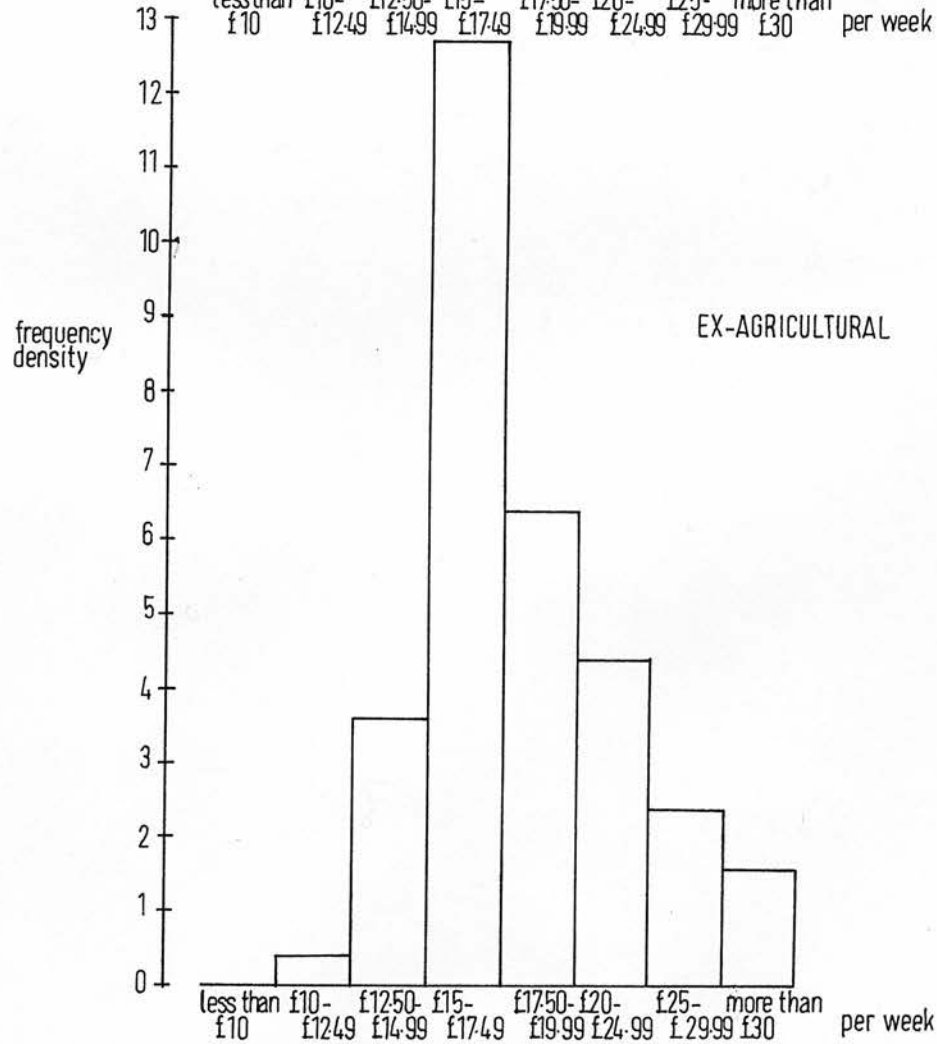


4·1 Average mobility rates for workers

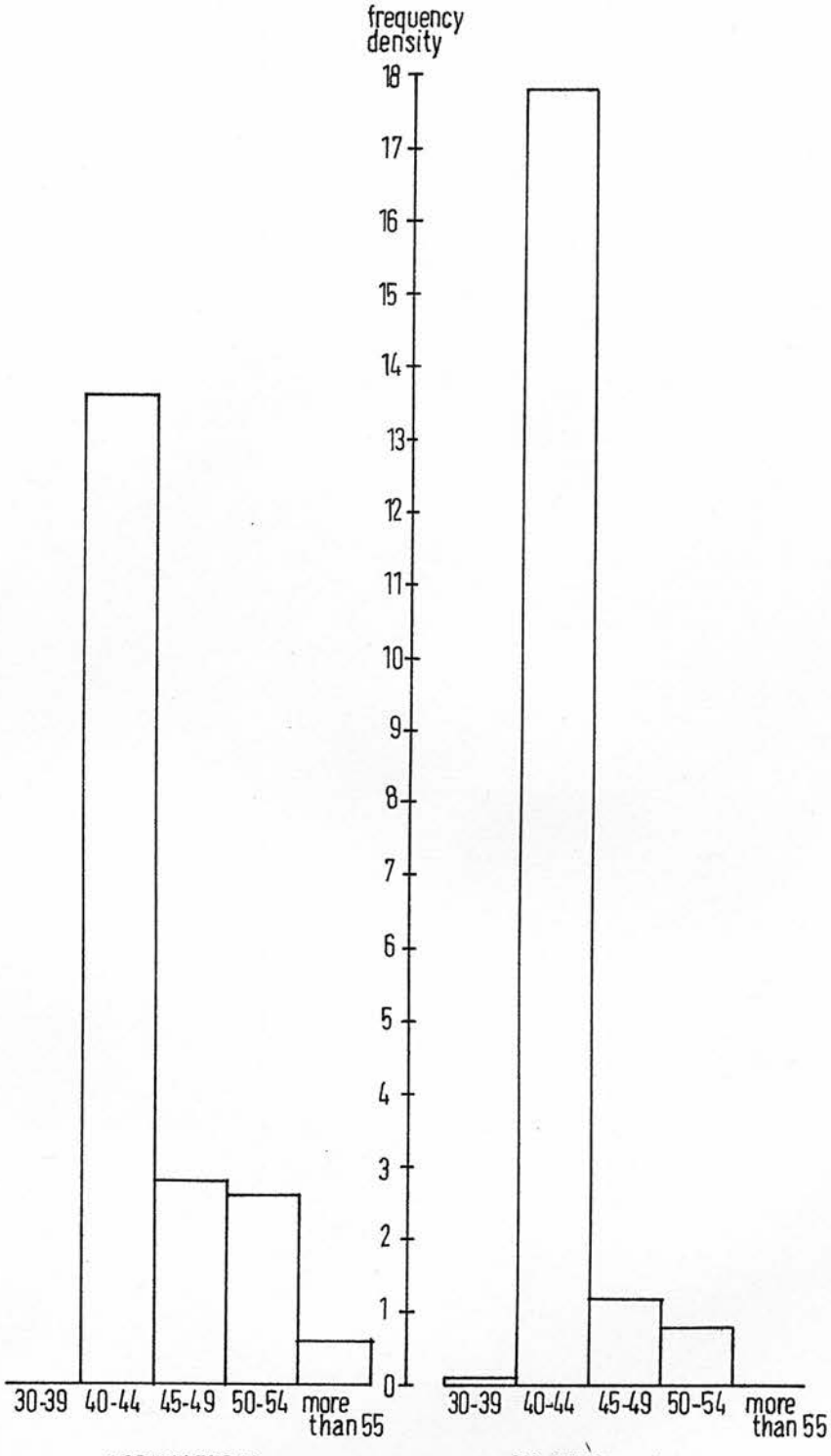


4·2 A comparison of cumulative percentage of agricultural and ex-agricultural workers' duration of employment





4.3 Distribution of take home pay.



Note: Excluded are two workers aged over 65 who are working less than 20 hours.

4.4 Distribution of hours worked

appendix 5

APPENDIX 5: SUMMARY OF STATISTICAL TESTS - Chapter 6

Null Hypothesis	Test	Result	Comment	Page
That there is no difference in time spent in present job with age of workers remaining in agriculture.	X^2	77.63 with 28 d.f; significant at .001% level.	N.H. is rejected. Number of job changes does decline with age. Correction for continuity applied.	183
That there is no difference in time spent in present job with age of workers leaving agriculture.	X^2	19.665 with 24 d.f.	Some support for N.H., but test is inconclusive. Correction for continuity applied.	195
That there is no difference in time spent in present job with age of workers moving outwith agriculture.	X^2	24.665 with 24 d.f.	Some support for N.H., but test is inconclusive. Correction for continuity applied.	206
That there is no difference between agricultural and ex-agricultural workers in the factors affecting job choice.	X^2	26.836 with 9 d.f; significant at .01% level.	N.H. is rejected. There is a difference in the factors affecting job choice between the groups of workers.	212
That there is no difference in the age effect on mobility between workers remaining in agriculture and those leaving.	X^2	7.25 with 1 d.f; significant at .01% level.	N.H. rejected. 'Normal' age effect found amongst agricultural workers; workers leaving agriculture show more tendency for movement by over 40's. Correction for continuity used.	213

Null Hypothesis	Test	Result	Comment	Page
That there is no difference in wage changes between workers remaining within agriculture and those leaving.	X^2	14.679 with 2 d.f; significant at .001% level.	N.H. rejected. Agricultural workers had a more consistent record of wage gains than those leaving agriculture.	214
That there is no difference in type of movement between workers remaining within agriculture and those leaving.	X^2	9.83 with 1 d.f; significant at .01% level.	N.H. rejected. There are more involuntary movers amongst workers leaving agriculture.	216
That there is no difference in the level of unemployment between workers leaving agriculture and those remaining.	X^2	18.80 with 1 d.f; significant at .001% level.	N.H. is rejected. Workers leaving agriculture are more prone to unemployment than those remaining. Correction used so that result approximates to that of the Fisher's exact test.	217
That there is no difference in the level of job satisfaction between workers leaving agriculture and those remaining.	X^2	3.678 with 2 d.f; significant at .2% level.	Evidence against N.H. but not a conclusive result.	218
That there is no difference in the numbers seeking a job in the previous 12 months between workers leaving agriculture and those remaining.	X^2	5.949 with 1 d.f; significant at .02% level.	N.H. is rejected. A greater number of ex-agricultural workers looked for a new job in the previous 12 months.	218

(N.H: Null Hypothesis) (X^2- Chi-squared)

Null Hypothesis	Test	Results	Comment	Page
That there was no difference in distance moved by two groups of workers.	X^2	16.37 with 3 d.f; exceeds 0.01% level.	N.H. is firmly rejected. Agricultural workers definitely move further. Groups 31-100 miles and 100 plus miles combined.	229
That there was no difference in distance moved according to direction of industrial mobility.	X^2	13.73 with 4 d.f; exceeds 0.01% level.	N.H. is rejected. Workers remaining within agriculture move further than workers leaving agriculture or moving in industry. Groups 31-100 miles and 100 plus miles combined. Correction for continuity applied.	231
That there was no difference amongst ex-agricultural workers in distance moved and change in pay.	X^2	16.37 with 15 d.f; significant at 0.35%.	Test is inconclusive. No definite evidence that pay increases with distance moved. Continuity correction applied.	233
	C.'s V	0.48	A certain degree of association indicated but again inconclusive.	233
That there was no difference amongst agricultural workers in distance moved and change in pay.	X^2	10.2 with 15 d.f; significant at 0.85%.	N.H. is supported but result inconclusive. Correction for continuity.	234
	C.'s V	0.27	Low order of association.	234

Null Hypothesis	Test	Result	Comment	Page
No difference in the geographical mobility rates between groups of workers.	X^2	4.3954 with 4 d.f; significant at 0.4% level.	Result is inconclusive. Correction applied for continuity.	236
No difference in age and time of last move for agricultural workers.	X^2	42.79 with 20 d.f; significant at 0.01% level.	N.H. is rejected. Age definitely does affect mobility. Correction for continuity applied.	238
No difference in age and time of last move for ex-agricultural workers.	X^2	19.4 with 20 d.f; significant at 0.55% level.	Result is inconclusive because of high rate of mobility amongst older workers. Correction for continuity applied.	238
	C.'s V	.27969	Low degree of association shown.	238
No difference in age and distance moved for ex-agricultural workers.	X^2	20.81 with 15 d.f; significant at 0.15% level.	Not conclusive in rejection of N.H. Correction for continuity applied.	240
No difference in age and distance moved for agricultural workers.	X^2	11.03 with 15 d.f; significant at o.25% level.	Result is inconclusive, although partially supporting N.H. Correction for continuity applied.	240
No difference for married ex-agricultural workers in terms of age, time of last move.	X^2	12.831 with 20 d.f; significant at 0.85% level.	Result partially supports N.H; need for corroboration. Correction applied.	243

Null Hypothesis	Test	Result	Comment	Page
No difference for married agricultural workers in terms of age and time of last move.	X^2	44.083 with 20 d.f; significant at 0.01% level.	N.H. rejected outright. Correction for continuity.	244
No difference between groups in reaction to job offer.	X^2	8.468 with 2 d.f; significant at 0.2% level.	N.H. rejected outright. Agricultural workers more willing to move.	246
No difference between groups in reaction to redundancy.	X^2	17.48 with 2 d.f; significant at 0.001% level.	N.H. rejected outright. Agricultural workers more willing to move in the face of redundancies.	246
No difference in reaction between ex-agricultural workers who have been mobile and those who have not.	X^2	0.1631 with 2 d.f; significant at 0.92% level.	N.H. supported. Previous experience appears to have little impact on future mobility.	249
No difference in reaction between agricultural workers who have been mobile and those who have not.	X^2	4.834 with 2 d.f; significant at 0.7% level.	N.H. is rejected. Past experience appears to encourage future mobility.	249

N.H: Null Hypothesis X^2: Chi-squared

C.'s V: Cramer's V

Null Hypothesis	Test	Result	Comment	Page
That there is no difference between the two groups of workers in the number of jobs held.	X^2	0.9534 with 3 d.f;	Hypothesis supported; but a 15% probability that such a result might occur by chance.	252
That there is no difference in the take-home pay of the two groups of workers.	X^2	15.428 with 7 d.f; exceeds 5% level.	Definite difference in the take-home pay; agricultural workers' pay less than ex-agricultural workers'; but note influence of ex-agricultural workers earning £20 plus on result.	257
That the level of satisfaction with pay is the same for both groups of workers.	X^2	12.30 with 2 d.f; significant at 0.005% level.	Definitely rejected N.H; much higher level of satisfaction amongst agricultural workers. Correction for continuity.	264
That the level of skill thought to be necessary is the same for both groups of workers.	X^2	14.97 with 2 d.f; significant at 0.001% level.	N.H. rejected; much higher level of skill thought to be necessary in agriculture.	267
That the level of noise at work is the same for both groups of workers.	X^2	3.726 with 2 d.f; significant at 0.20% level.	An indeterminate result.	271
That the level of dirt in the job is the same for both groups of workers.	X^2	12.48 with 2 d.f; significant at the 0.005% level.	N.H. rejected but difficult to say that agriculture is cleaner; large proportion of ex-agricultural workers at both ends of the scale may have caused the confusion.	272

Hypothesis	Test	Result	Comment	Page
That there is no difference between the two groups of wives in take-home pay.	X^2	1.98 with 5 d.f; significant at 10% level.	There is probably no difference in take-home pay. Correction for continuity applied.	294
That there is no difference in the reaction of the occupants of tied housing and council housing to employment difficulties.	X^2	28.71 with 2 d.f; exceeds the 0.1% level of probability.	Council house tenants are much less willing to move than are tenants of tied housing.	309
That there is no difference in the distance moved by the tenants of tied and council housing.	X^2	21.175 with 3 d.f; exceeds the 0.1% level of probability.	Council house tenants definitely moved shorter distances than did the tenants of tied houses.	310

X^2 = Chi-squared

Summary of Statistical Tests - Chapter 10

Note: In both these cases the test used is that for the difference between the percentages of two samples. This test is much the same as that for the difference between the means of two samples. Thus the value of Z can be computed as:

$$Z = \frac{(P_1 - P_2) - (\pi_1 - \pi_2)}{\hat{\sigma}_{P_1 - P_2}}$$

Null Hypothesis	Result	Comment	Page
That there was no difference in the number of wage reductions between voluntary and involuntary movers.	Significant at 1% level.	N.H. rejected. Involuntary movers were more susceptible to wage reductions.	321
That there was no difference in the incidence of unemployment between voluntary and involuntary movers.	Significant at 1% level.	N.H. rejected. Involuntary movers were more susceptible to periods of unemployment.	336

appendix 6

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FARMING TYPES MAP

This map shows the major regional patterns of farm type distribution in Scotland. It is based on the farm classification for June 1968 and refers only to full-time farms (except in the north and west). The map is based on relative farm numbers. It does not show which type of farm occupies the largest acreage in a given area, nor even necessarily which type of farm is economically the most significant in that area (such a measure could be derived using standard man hours as the criterion of relative significance, rather than the simple basis of farm numbers). Nor does it have anything to say about absolute numbers of farms. Its primary aim is to show which farm type is most representative in any area, in structural terms.

THE PARISH FRAMEWORK: From type distributions of farms for each parish a note was made of all significant types. On the basis of this information framework provided by the parish units, farming type regions were delineated, and qualitative judgements, based on local knowledge and inference from topographical and climatic data, permitted considerable flexibility in transferring information from the rigid parish pattern to a smoother outline, according more closely with environmental realities. Nevertheless, the constraints imposed by the original framework remain. In the case of very localised types of farming, such as horticulture, it is sometimes largely the chance situation of parish boundaries which determines whether they show up as the major types or secondary ones.

AREA SHADING: Three degrees of importance are recognised:

(i) where 70 per cent of farms belong to one given type (predominant);

(ii) where the major category does not exceed 70 per cent (major);

(iii) where a secondary type accounts for more than 15 per cent of all full-time farms (secondary).

General patterns of farming type distribution are closely related to the physical and economic environment. There is, however, inevitably some overlap between type areas and area shadings merged in the transitional zones, eg along the northern edge of Strathmore, or elsewhere where two significant types occur together as in east Fife. Merged shadings generally involve one major and one secondary type, but to the south of Glasgow there is a significant scatter of upland farms in an area where dairying is predominant.

SECONDARY SYMBOLS: Point symbols are used where a secondary type occurs in isolation (ie where it is not contiguous with an area where that type predominates) and is significant (ie there are at least 4 farms in the secondary type and they account for more than 15 per cent of all full-time farms).

PART-TIME FARMS: Although the map is primarily intended to show types of full-time farming, such an analysis was only meaningful in parishes where at least 10 per cent of all farms were full-time. Many parishes in the north and east have very few full-time farms and it would be misleading to designate a whole parish as predominantly hill sheep, for example, on the basis of only two or three farms. Areas where more than 90 per cent of farms are part or spare-time are, therefore, left blank, though clusters of four or more full-time farms of a given type are shown by point symbols, where they occur in proximity.

appendix 1.14

PRIMARY
Predominant Major

SECONDARY
Contiguous Isolated Over 90 % Part-time

HILL SHEEP

UPLAND

REARING WITH ARABLE

REARING WITH INTENSIVE LIVESTOCK

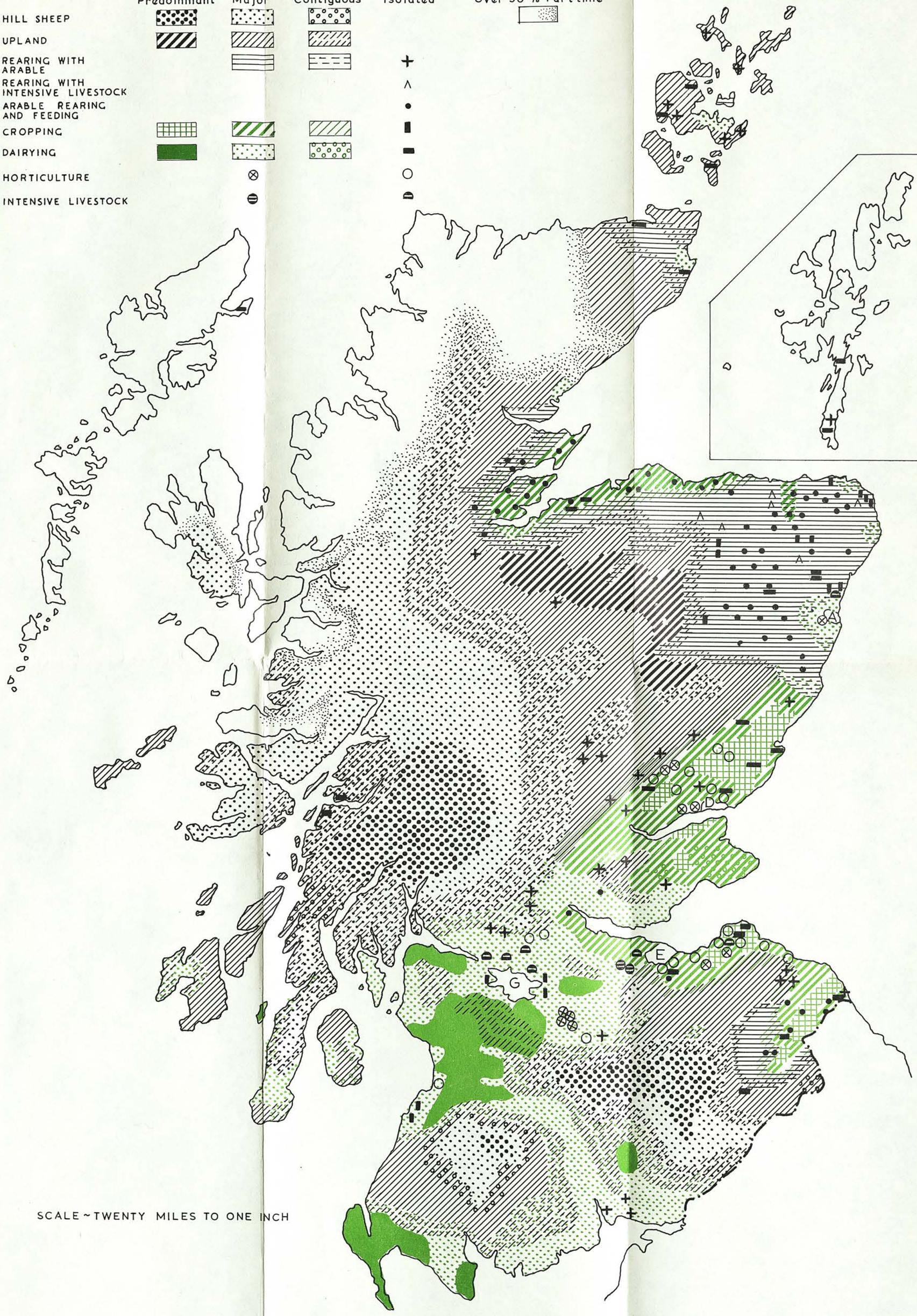
ARABLE REARING AND FEEDING

CROPPING

DAIRYING

HORTICULTURE

INTENSIVE LIVESTOCK



SCALE ~ TWENTY MILES TO ONE INCH

SCOTLAND FARMING TYPES 1968